

# Prontosil

HPLC Columns



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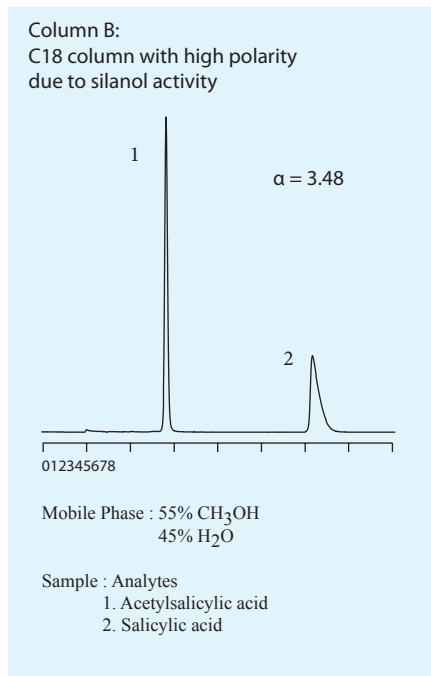
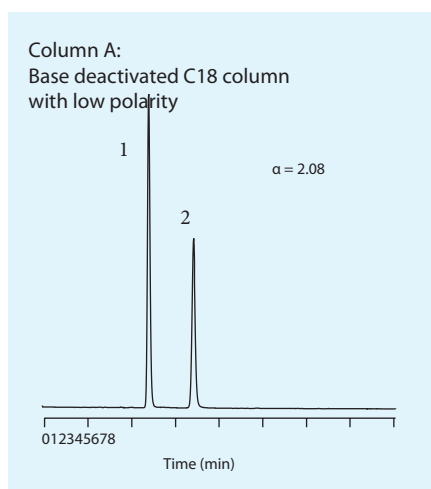
## ProntoSIL HPLC Columns

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# ProntoSIL C18-EPS Reversed-Phase HPLC Columns

## Using New Polar Embedded Phases to Optimize Reversed Phase Separations

Figure 1  
**High Polarity Stationary Phases Offer Alternate Selectivity to Base Deactivated Phases**



Column B (significant silanol activity) provides greater selectivity than Column A for these polar solutes but at a cost of poorer peak shape for salicylic acid.

### Introduction

Base deactivated stationary phases have been a real asset to chromatographers who develop HPLC separations of polar compounds. Columns packed with these base-deactivated phases provide better peak shape, increased column efficiency, and improved lot-to-lot reproducibility, especially when separating bases.

However, there are occasions when a typical base deactivated phase may not provide an optimum separation. Manufacturers of base deactivated columns try to minimize interactions between polar solutes and silanol groups on the surface of the stationary phase support. This produces stationary phases with low polarity and these low polarity phases will all have similar selectivity for polar compounds. This means that if one brand of base deactivated column lacks selectivity to adequately separate a pair of polar solutes, other brands of base deacti-

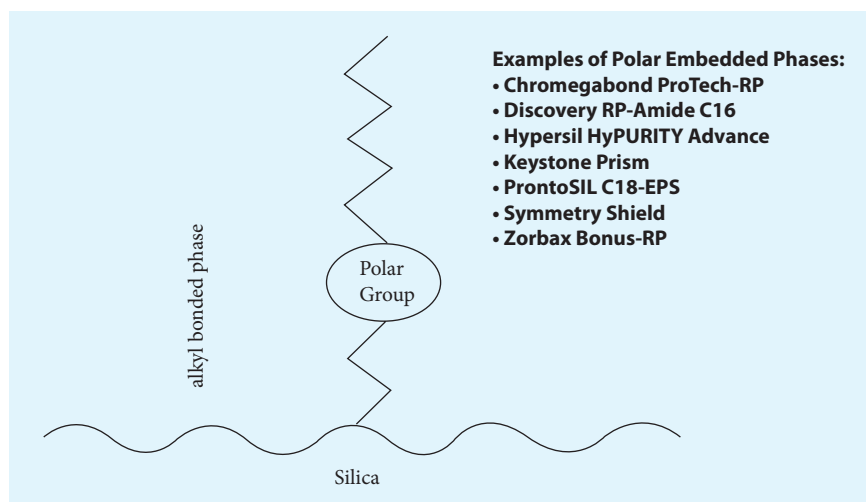
vated columns will also probably lack adequate selectivity.

To optimize the separation, a more polar stationary phase may be necessary. Unfortunately, stationary phases that have polar characteristics due to silanol activity will often exhibit poor peak shape and uncertain reproducibility when separating polar compounds (Figure 1).

To solve this problem, column manufacturers have developed a new type of base deactivated stationary phase with polar groups, such as amides or carbamates, “embedded” in the bonded phase (Figure 2).

These polar embedded phases provide polar selectivity without the poor chromatographic performance associated with stationary phases that have high silanol activity.

Figure 2  
**Polar Embedded Phases**



By embedding a polar group, such as an amide or carbamate, in the bonded phase a new type of base deactivated column with polar selectivity can be created.

## Strategy for Developing Reversed Phase Separations of Ionic Compounds

Table 1 provides a brief outline of a typical strategy used to develop an isocratic separation of polar compounds.

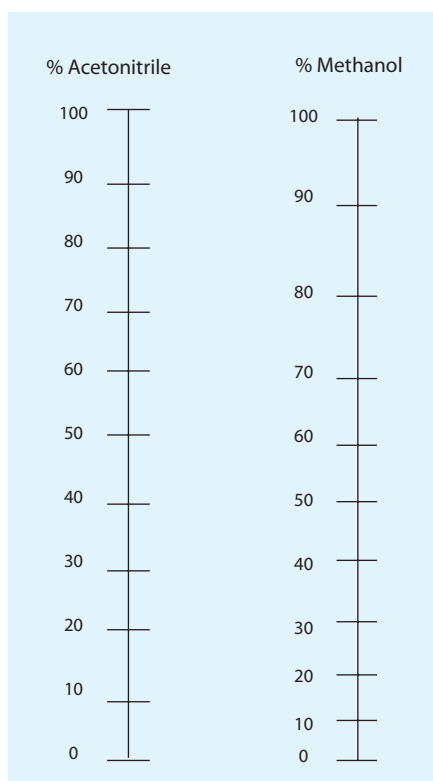
As mentioned before, typical base deactivated columns sometimes fail to provide adequate selectivity for mixtures of polar compounds.

This is where polar embedded phases should be used.

The polar characteristics of these special base deactivated columns will often provide significantly better selectivity for mixtures of acids and bases.

Therefore, if during the process of developing a separation you find that a typical C18 or C8 column does not provide adequate selectivity, your next step should be to select a polar embedded phase column to evaluate.

Figure 3  
Solvent Elution Strength Comparison

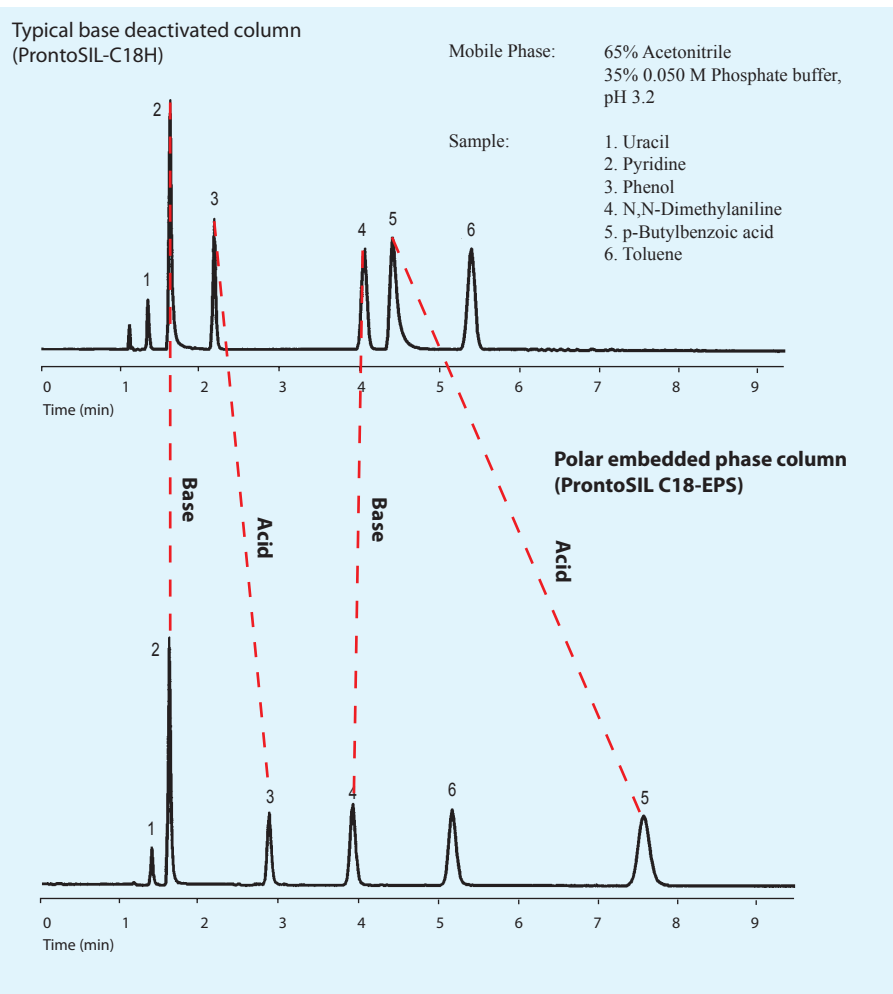


Acetonitrile is a stronger solvent than methanol for reversed phase HPLC. This nomograph will help you keep the mobile phase elution strength constant when you switch from acetonitrile to methanol. For example, you will need about 62% methanol in the mobile phase to equal the eluting strength of 50% acetonitrile.

Table 1  
Strategy for Developing Reversed Phase Separations of Polar Compounds

- Select a base deactivated C18 or C8 column.
- Use a mobile phase consisting of acetonitrile and 0.025 — 0.050 M potassium phosphate at a pH less than 3.0.
- Adjust the amount of acetonitrile in the mobile phase until the  $k$  values of all peaks are between 1 and 10.
- Evaluate the selectivity, and if it is unacceptable, (i.e., not all peaks of interest are adequately separated), substitute methanol for acetonitrile and again evaluate selectivity. Figure 4 will help you calculate the amount of methanol needed in the mobile phase to keep the elution strength constant.
- If selectivity is still unacceptable, choose a different stationary phase to evaluate. This can be a different brand of C18, but your best bet is to try a different bonded phase chemistry such as CN, Phenyl, or a polar embedded phase.
- Once the selectivity is acceptable, optimize the separation by adjusting the mobile phase strength (% organic solvent composition) and flow rate until all peaks are adequately separated ( $R_s > 1.5$ ) and the system back pressure and overall separation time is suitable for the application. In a rigorous method development process, mobile phase pH, mobile phase additives (buffer concentration, ion pair reagents, amine modifiers, etc.), column temperature, and column configuration should also be evaluated and optimized.

Figure 4  
Polar Embedded Phases Offer Alternate Selectivity to Typical Base Deactivated Phases



In general, polar embedded phases will retain acids longer and bases slightly less than typical base deactivated columns.

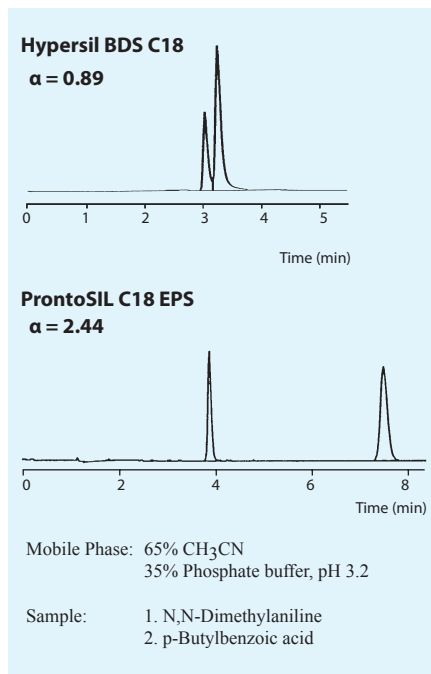
## Using The Polar Selectivity of Polar Embedded Phases to Optimize a Separation

Columns packed with polar embedded phases are used in the same way as typical reversed phase columns and the separation strategy outlined in Table 1 is also appropriate for these columns.

However, you should expect significant differences in selectivity from polar embedded phases due to their polar selectivity.

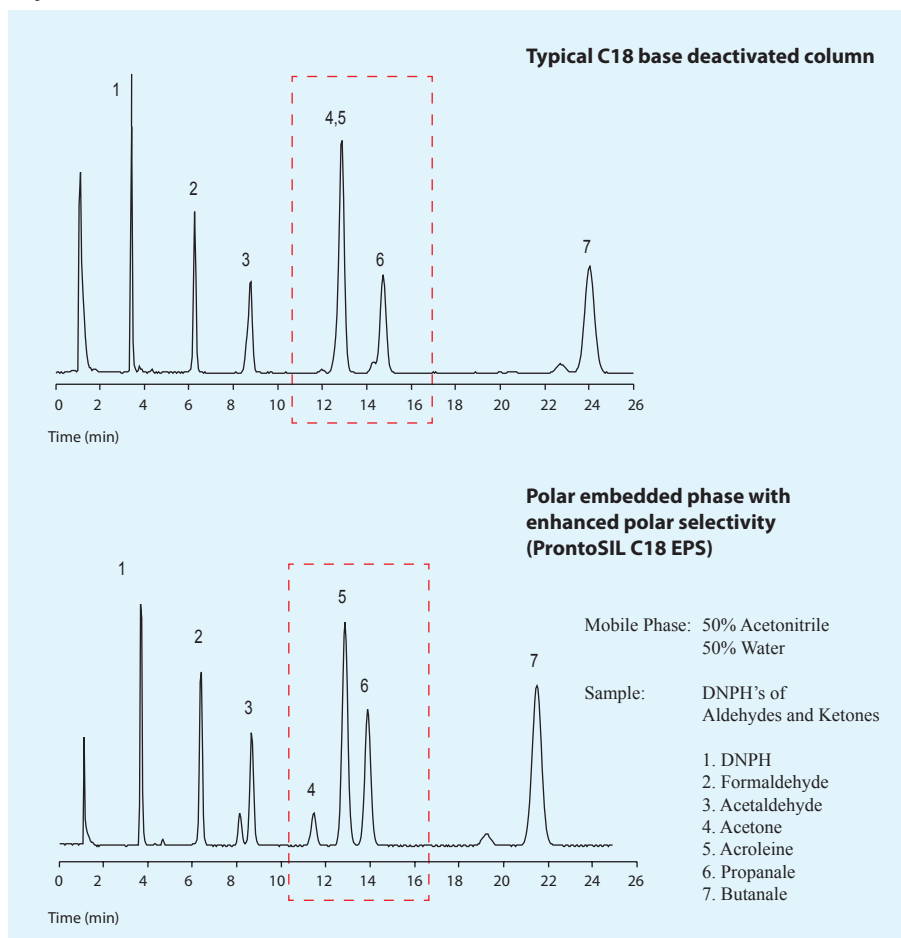
The polar selectivity of polar embedded phases comes from the interaction between the amide or carbamate group and polar solutes. In general you can expect that acidic compounds will be retained longer and basic compounds will be retained slightly less on polar embedded phases compared to typical reversed phase columns (Figure 4). Sometimes the selectivity differences can be dramatic, as shown in Figure 5, and sometimes they may be more subtle but still significant in optimizing a separation, as shown in Figure 6.

FIGURE 5  
Polar Embedded Phases Can Offer Dramatic Improvements in Selectivity



The ProntoSIL C18-EPS with enhanced polar selectivity provides significantly better selectivity for this pair of polar solutes than a typical base deactivated column (Hypersil BDS C18).

Figure 6  
Subtle Differences in Stationary Phase Selectivity Can Be Useful in Optimizing HPLC Separations



The polar selectivity offered by polar embedded phases will often provide a better separation. In this separation of DNP's of aldehydes and ketones, compounds 4 and 5 co-elute on a typical base deactivated phase, but are well separated on a polar embedded phase.

## Improved Peak Shape

Most polar embedded phases use high purity silica as the stationary phase support and thoroughly cover the silica with bonded phase to reduce interaction between acidic silanols and polar solutes.

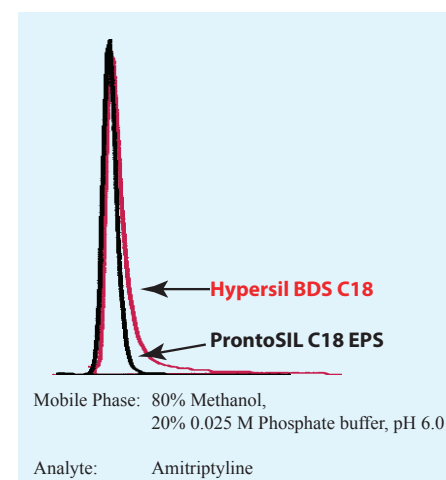
This in itself would produce a stationary phase with good peak shape for basic compounds, but polar embedded phases also have the advantage of further deactivating the stationary phase support by means of the amide or carbamate groups.

Although the mechanism is not fully understood, the prevailing view is that the polar embedded groups interact with unbonded silanols on the silica stationary phase support and thereby block them from interacting with polar solutes.

The effect is similar to adding an amine modifier to the mobile phase.

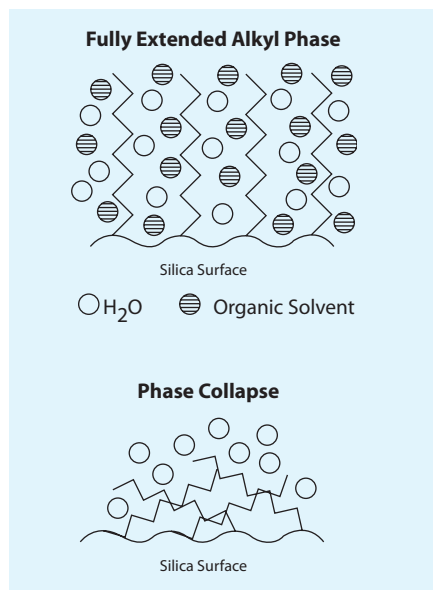
This "polar shielding," as some manufacturers call it, gives these phases excellent peak shape for basic compounds over a broad pH range (Figure 7).

Figure 7  
Polar Embedded Phases Provide Excellent Peak Shape for Basic Compounds



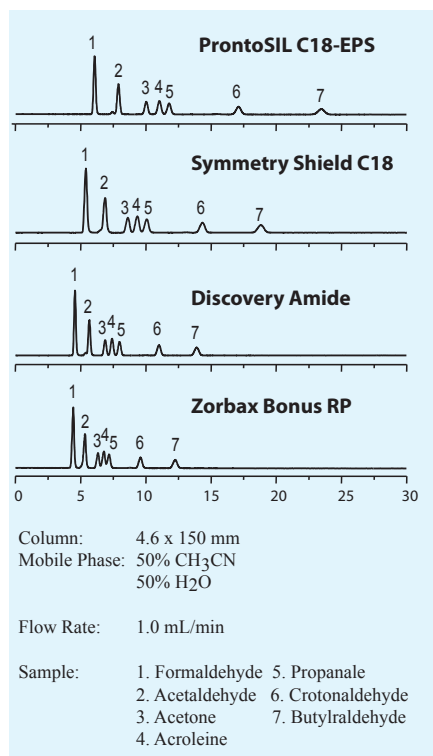
The amide group of the ProntoSIL C18-EPS shields the silica surface and prevents solutes from interacting with silanol groups. The result is exceptionally good peak shape for even difficult basic compounds.

Figure 8  
Phase Collapse



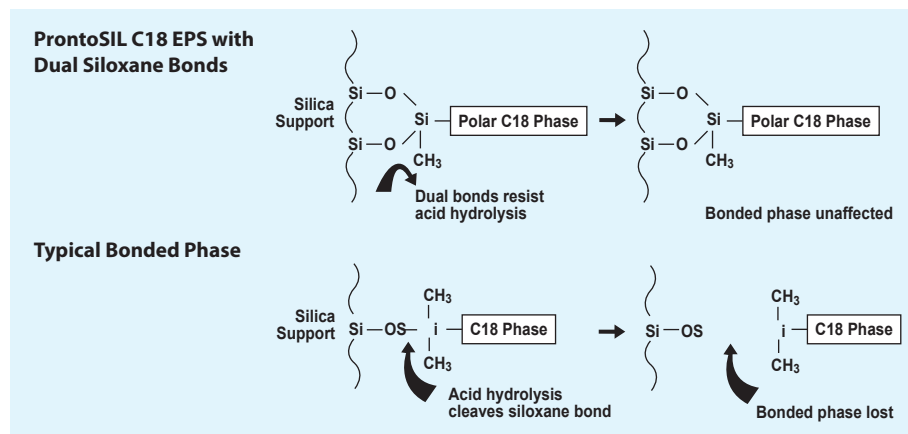
When operating with less than 10% organic modifier in the mobile phase, typical C18 and C8 phases are susceptible to phase collapse. Polar embedded phases do not have this problem and are preferred over typical base deactivated phases for high aqueous mobile phase conditions.

Figure 9  
Comparison of Retention of Some Popular Polar Embedded Phases



Most polar embedded phase columns are less hydrophobic, and thus less retentive than typical reversed phase columns. ProntoSIL C18-EPS, however, is an exception and provides comparable retention to other C18 phases. In this example, we see that ProntoSIL C18-EPS is the most retentive of these four polar embedded phases.

Figure 10  
Bonded Phase on the ProntoSIL C18-EPS is Secured Through Dual Siloxane Bonds



Acid hydrolysis of the siloxane bond and the resulting loss of bonded phase (i.e., C18 Phase) is one of the major reasons for column failure. ProntoSIL C18-EPS uses unique bonding chemistry to secure the polar C18 phase to the silica support through dual siloxane bonds. The dual bonding inhibits the loss of bonded phase and makes these columns unusually stable.

## Polar Embedded Phases Are Preferred for High Aqueous Mobile Phase Conditions

The alkyl bonded phase of typical C18 and C8 columns undergo what many researchers call “phase collapse,” or “matting,” when operating with less than 10% organic modifier in the mobile phase (Figure 8). As phase collapse progresses, the availability of the alkyl phase to interact with solutes decreases and retention time decreases. Polar embedded phases can be used with high aqueous mobile phases without the problem of phase collapse.

The polar embedded groups permit the stationary phase surface to remain “wet” even under 100% aqueous mobile phase conditions.

This keeps the bonded phase fully extended into the mobile phase, eliminates phase collapse, and facilitates the retention of highly water soluble compounds that may be poorly retained on typical reversed phase columns.

Ion pair reagents can be avoided so that chromatographic conditions are simpler and methods are more rugged.

## Retention Comparison

In general, polar embedded phase columns are less hydrophobic and therefore less retentive than typical reversed phase columns.

ProntoSIL C18-EPS, however, is an exception. It provides similar retention as other C18 phases for neutral and hydrophobic compounds and slightly more retention for some highly water soluble compounds. Figure 9 provides a comparison of retention for four popular polar embedded phases.

## Bonded Phase Stability

There is no reason to believe that polar embedded phases are any less stable than typical C18 and C8 phases.

Most manufacturers report stability data to support this. One column, Zorbax Bonus RP, uses unique silanes with bulky side groups to add stability to its bonded phase.

Another column, ProntoSIL C18-EPS, uses dual siloxane bonds to increase bonded phase stability and actually demonstrates much greater durability than other C18 phases as well as other polar embedded phases (Figure 10).

The next time you encounter poor selectivity while trying to separate polar solutes on a base deactivated phase, try one of these new polar embedded phases. You will be more likely to achieve a satisfactory separation with the polar embedded phase than with another brand of base deactivated column.



# ProntoSIL C30-EPS Reversed-Phase HPLC Columns

- **Unique “planar selectivity” for carotenoids and structural isomers**
- **Excellent reproducibility**
- **Multi-valent silane bonding for enhanced stability**

## Reversed Phase HPLC Columns for the Separation of Hydrophobic Structural Isomers

ProntoSIL C30 HPLC columns are particularly recommended for the separation of hydrophobic, long-chain, structural isomers. They are often a better alternative to normal phase columns for the separation of isomers since they are not as sensitive as normal phase columns to water content of the mobile phase and are not as susceptible to column fouling. ProntoSIL C30 columns show significantly greater shape selectivity compared to C18 phases due to their rigid, highly ordered C30 alkyl groups (Figure 6). This shape selectivity advantage makes them the ideal HPLC column to use for the separation of carotenoids (Figure 7) and tocopherol derivatives (Figure 8).

For best performance, C30 columns should be used at ambient temperature or lower.

At elevated temperatures, the C30 alkyl chains will become less ordered and lose their shape selectivity (Figure 9). In addition, C30 phases should be used with mobile phases containing at least 20% organic modifier to avoid phase collapse.

Although you can expect lower plate count on C30 phases compared to C18 phases, the ability of the C30 phases to separate isomers that are not possible to separate on C18 phases make them an attractive choice for many applications. C30 phases have been successfully used for the analysis of plant extracts, food, and biological tissues that contain structurally different carotenoids and mixtures of geometric isomers.

They are also commonly used for separating stereoisomers of vitamin E and vitamin A, and for the separation of PAHs.

Figure 6

### Comparison of C30 and C18 Phases for the Separation of Lutein Stereoisomers

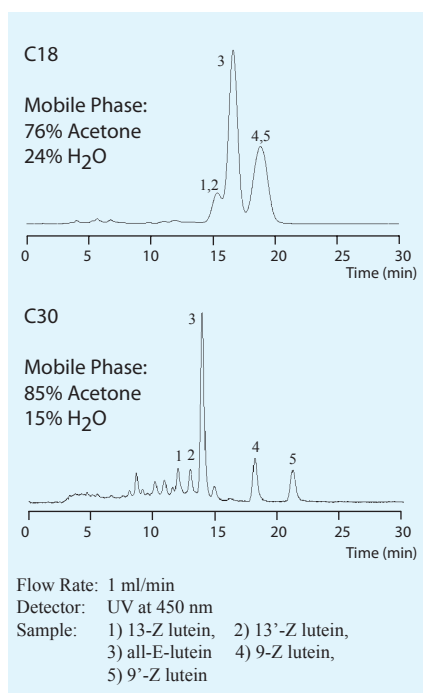


Figure 7

### HPLC Separation of Carotenoids

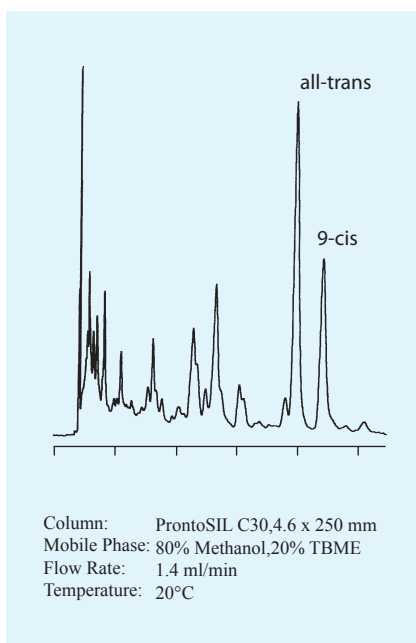
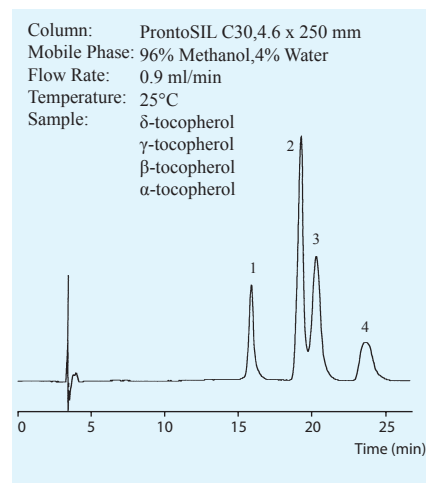


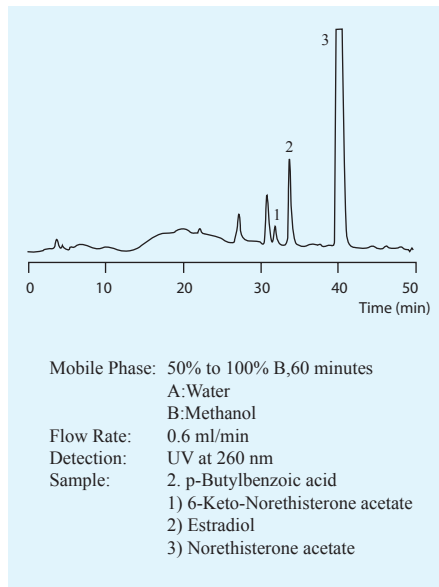
Figure 8

### HPLC Separation of Tocopherol Isomers



By courtesy of Prof. Dr. K. Albert et al,  
University Tuebingen, Germany.

Figure 10  
HPLC Separation of Steroids  
(Metabolites of Norethisterone Acetate)



By courtesy of Prof. Dr. K. Albert et al,  
University Tuebingen, Germany.

## Specifications

### Stationary Phase Support:

Spherical, ultra-pure, "Type B" silica

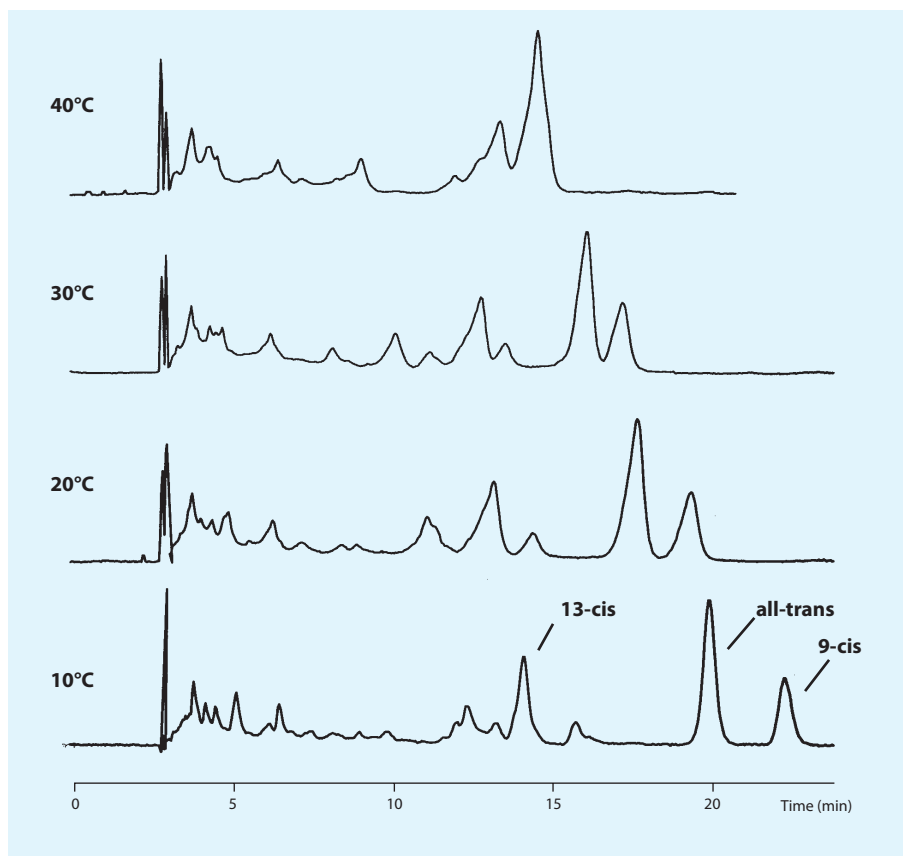
- 3 and 5 micron particle size
- 200 Angstrom pore size
- 200 m<sup>2</sup>/gram surface area

### Bonded Phase:

Polymeric bonding chemistry,  
non-encapped

- C30 (Triacontylsilane)
- 18.5% carbon load

Figure 9  
The Effect of Temperature on Shape Selectivity of C30 Phases



## ProntoSIL C30 Ordering Information

Dimensions (mm)	Particle Size (µm)	Part Number
2.0 x 50	3	0502H300PS030
2.0 x 50	5	0502H300PS050
2.0 x 75	3	0702H300PS030
2.0 x 75	5	0702H300PS050
2.0 x 100	3	1002H300PS030
2.0 x 100	5	1002H300PS050
2.0 x 150	3	1502H300PS030
2.0 x 150	5	1502H300PS050
2.0 x 250	5	2502H300PS050
4.6 x 50	3	0546H300PS030
4.6 x 50	5	0546H300PS050
4.6 x 75	3	0746H300PS030
4.6 x 75	5	0746H300PS050
4.6 x 100	3	1046H300PS030
4.6 x 100	5	1046H300PS050
4.6 x 150	3	1546H300PS030
4.6 x 150	5	1546H300PS050
4.6 x 250	3	2546H300PS030
4.6 x 250	5	2546H300PS050
8.0 x 250	5	2580H300PS050
20.0 x 250	5	2520H300PS050

## Guard Cartridges (Guard Cartridge Holder required)

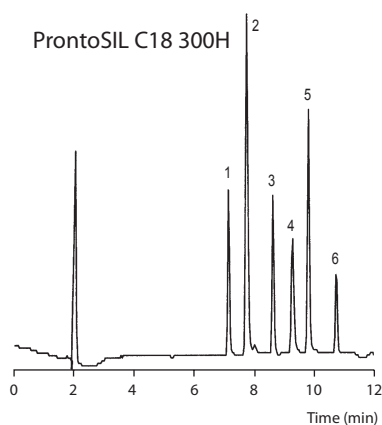
4.0 x 10 (5 pk)	5	6301H300PS050
2.0 x 10 (5 pk)	5	6321H300PS050
Guard Cartridge Holder		15010508



# ProntoSIL 300Å Wide Pore

These wide pore phases are recommended for the separation of proteins and peptides. As with all ProntoSIL phases, ultra pure silica is used for the stationary phase support, and the latest bonding technology is used to provide rugged, reliable separations. C18, C8, and C4 bonded phase are available.

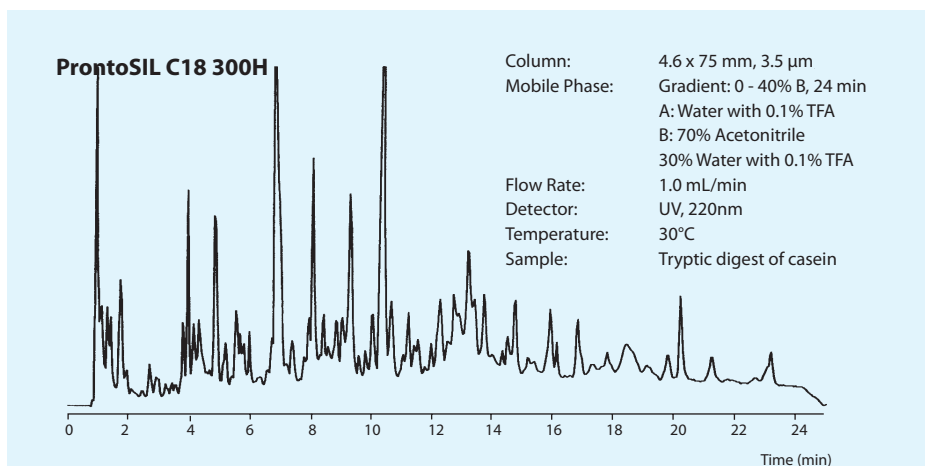
Figure 14  
**Separation of Peptides on ProntoSIL C18 300H**



Column: 4.6 x 250 mm, 5 µm  
 Mobile Phase: Gradient: 20 - 100% B, 30 min  
 A: Water with 0.1% TFA  
 B: 70% Acetonitrile 30% Water with 0.1% TFA  
 Flow Rate: 1.5 mL/min  
 Detector: UV, 220nm  
 Temperature: 30°C  
 Sample: 1. Oxytocin 4. Eledoisin  
 2. Bradykinin 5. Neurotensin I  
 3. Angiotensin II 6. Angiotensin I

The wide pore ProntoSIL C18 300H column is recommended for the separation of peptides.

Figure 15  
**Separation of Tryptic Digest of Casein**



High efficiency ProntoSIL C18 300H 3 micron material packed in a short column provides high speed, high resolution separation of tryptic digests.

## Specifications for ProntoSIL 300Å Phases

Phase	End capped	Particle Size (µm)	Pore Size Å	Surface Area (m <sup>2</sup> /g)	Carbon Load (%)
C18 300 H	yes	3, 5	300	100	7
C8 300 SH	yes	3, 5	300	100	4
C4 300	yes	3, 5	300	100	2.5

## ProntoSIL 300Å Wide Pore Ordering Information

Dimensions (mm)	Particle Size (µm)	C18 300 H	C8 300 SH	C4 300
2.0 x 50	3	0502K185PS030	0502K080PS030	0502K040PS030
2.0 x 50	5	0502K185PS050	0502K080PS050	0502K040PS050
2.0 x 75	3	0702K185PS030	0702K080PS030	0702K040PS030
2.0 x 75	5	0702K185PS050	0702K080PS050	0702K040PS050
2.0 x 100	3	1002K185PS030	1002K080PS030	1002K040PS030
2.0 x 100	5	1002K185PS050	1002K080PS050	1002K040PS050
2.0 x 150	3	1502K185PS030	1502K080PS030	1502K040PS030
2.0 x 150	5	1502K185PS050	1502K080PS050	1502K040PS050
2.0 x 250	5	2502K185PS050	2502K080PS050	2502K040PS050
4.6 x 50	3	0546K185PS030	0546K080PS030	0546K040PS030
4.6 x 50	5	0546K185PS050	0546K080PS050	0546K040PS050
4.6 x 75	3	0746K185PS030	0746K080PS030	0746K040PS030
4.6 x 75	5	0746K185PS050	0746K080PS050	0746K040PS050
4.6 x 100	3	1046K185PS030	1046K080PS030	1046K040PS030
4.6 x 100	5	1046K185PS050	1046K080PS050	1046K040PS050
4.6 x 150	3	1546K185PS030	1546K080PS030	1546K040PS030
4.6 x 150	5	1546K185PS050	1546K080PS050	1546K040PS050
4.6 x 250	5	2546K185PS050	2546K080PS050	2546K040PS050
8.0 x 250	5	2580K185PS050	2580K080PS050	2580K040PS050
Guard Columns*				
2.0 x 10	5	6321K185PS050	6321K080PS050	6321K040PS050
4.0 x 10	5	6301K185PS050	6301K080PS050	6301K040PS050
Guard Cartridge Holder Set		15010508	15010508	15010508

\*Requires Hardware Kit

# ProntoSIL Chiral AX HPLC Columns

- **Multi-mode separation: Reversed phase, non-aqueous reversed phase (NARP), normal phase**
- **Two complementary phases: Separate enantiomers in the order R, S or S, R**
- **Stability: pH stable from 2 - 8**
- **High loadability: Up to 50 mg sample per gram of stationary phase**

## ProntoSIL Chiral AX

Multi-modal, Complementary Chiral HPLC Columns The new ProntoSIL Chiral AX HPLC columns from Bischoff Chromatography can be described in one word; versatile. With Chiral AX, you now have the versatility to use any mobile phase, aqueous or organic, reversed

phase or normal phase.

Furthermore, Chiral AX now offers pH stability for chiral separations similar to that obtained with standard reversed phase columns.

Since the objective of many chiral separations is isolation and purification of one enantiomer, Chiral AX offers both high loadability and the option of reversing elution order by using one of two complementary bonded phases.

## Description

ProntoSIL Chiral AX HPLC columns are weak anion exchangers and are very well suited for the separation of acidic chiral analytes such as N-derivatized amino acids, amino sulfonic acids, amino phosphonic acids, acidic pharmaceuticals, arylcarbonic acid herbicides and N-derivatized peptides.

Two chiral selectors are offered:

carbamylated quinine (ProntoSIL Chiral AX QN-1) and carbamylated quinidine (ProntoSIL Chiral AX QD-1). The structure of these phases

is show in Figure 11.

## Choose a Mobile Phase That's Right for Your Sample

ProntoSIL Chiral AX columns are "multimodal" in that they can be used in either reversed-phase, non-aqueous reversed phase or normal phase modes. Many chiral columns restrict the amount of organic or aqueous solvent allowed in the mobile phase. Because of the non-covalent bonding used in these other columns, use of solvents outside the recommended range can cause irreversible column damage.

The chiral selective group used in Chiral AX is covalently bonded to the silica support and can be used in the same manner as a typical reversed phase column. These columns are well suited for use in high aqueous mobile phases making them the ideal choice for the separation of biological enantiomers such as amino acids and peptides.

Figure 11  
Structure of the Chiral AX Phases

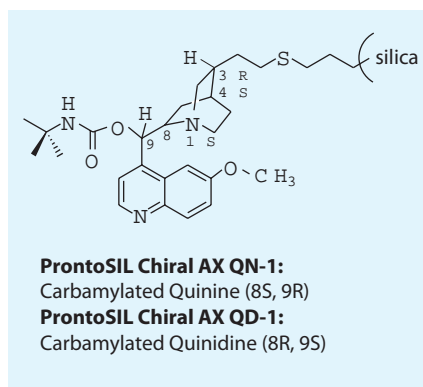
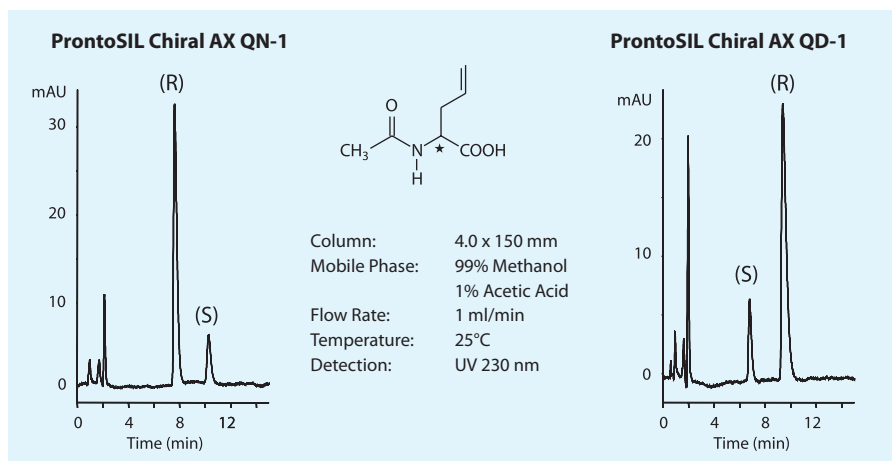


Figure 12  
Separation of the Enantiomers of Allylglycine on Both Supports



### Achieve Complementary Separations

The chiral selectivity of ProntoSIL AX is due to several possible mechanisms including steric interaction, hydrogen bonding,  $\pi$ - $\pi$  interactions and ion pairing.

These different contributions offer a powerful separation mechanism. In most instances, R & S enantiomers separated on the quinine form (QN-1) of the column can be eluted in reverse order when using the quinidine (QD-1) column (See Fig 12).

The complementary separation thus obtained can be a powerful tool when scaling up the separation for purification of a given enantiomer.

### High Loadability

Chiral AX columns offer excellent loadability, up to 50 mg of sample per gram of stationary phase. This high capacity coupled with the complementary separations obtained makes ProntoSIL Chiral AX columns in the QN-1 and QD-1 phases an excellent preparative system for chiral compounds (Fig 13).

### Literature References

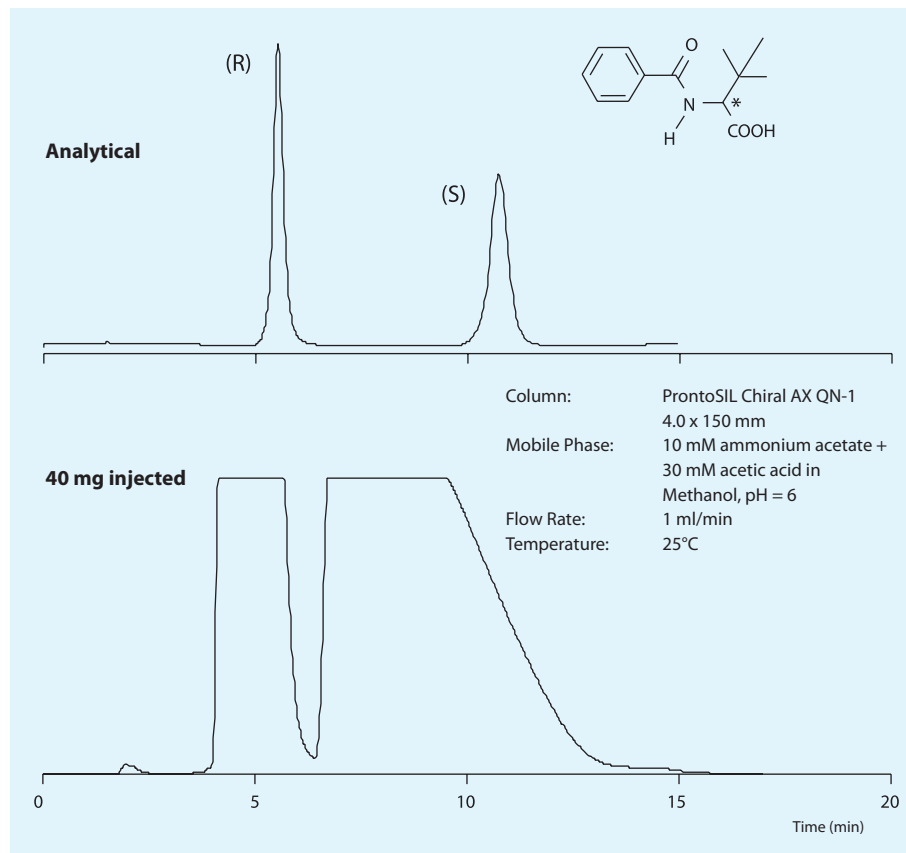
Quinine and Quinidine Derivatives as Chiral Selectors I. Brush Type Chiral Stationary Phases for HPLC Based on Cinchonan Carbamates and Their Application as Chiral Anion Exchangers, M.Lämmerhofer and W.Lindner, J.Chromatogr. A 741, 33-48 (1996).

Chiral Anion Exchange-Type Stationary Phases Based on Cinchonan Alkaloids. An effective tool for the separation of the enantiomers of chiral acids. M. Lämmerhofer, N.M.Maier and W. Lindner, American Laboratory 30/8, 71-78 (1998).

Enantioselective Anion Exchangers Based on Cinchona Alkaloid Derived Carbamates: Influence of C8/C9-Stereochemistry on Chiral Recognition, N.M.Maier, L. Nicoletti, M. Lämmerhofer and W. Lindner, Chirality 11, 522-528 (1999).

Enantiomeric Separation of N-protected Amino Acids by Non-aqueous Capillary Electrophoresis Using Tert. Butyl Carbamoylated Quinine as Chiral Additive, V. Piette, M. Lämmerhofer, W. Lindner, J. Crommen, Chirality 11, 622-630 (1999).

Figure 13  
ProntoSIL Chiral AX Columns Show Extremely High Loadability



### ProntoSIL Chiral AX Ordering Information

Dimensions Particle (mm)	Size ( $\mu$ m)	AX QD-1	AX QN-1
2.0 x 150	5		1502F10EPS050
2.0 x 150	5	1502F10FPS050	
4.0 x 150	5		1504F10EPS050
4.0 x 150	5	1504F10FPS050	
8.0 x 150	5		1580F10EPS050
8.0 x 150	5	1580F10FPS050	
<b>Guard Cartridges</b>			
2.0 x 10 (3 pk)	5	6321F10FPS050	6321F10EPS050
4.0 x 10 (3 pk)	5	6301F10FPS050	6301F10EPS050
Guard Cartridge Holder		15010508	15010508

ProntoSIL Chiral AX columns are also available in preparative dimensions.



# High Performance ProntoSIL HPLC Columns

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<b>. ProntoSIL C30</b>	
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<b>. ProntoSIL Chiral AX</b>	
<b>. ProntoSIL ENVIRO-PHE</b>	
<b>. ProntoSIL ENVIRO-PTL</b>	
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## ProntoSIL C18 ace-EPS(shielded-Encapsulation)

- new group of stationary RP-supports with polar embedded groups.
- very stable over a wide pH range (pH 1-10).
- maximum of hydrophobicity combined with a maximum of polar selectivity.
- The application area of these packings is in the pharmaceutical industry where the analytes often have basic or acidic groups.

ProntoSIL C18 ace-EPS 컬럼은 넓은 pH 범위(pH 1-10)의 매우 안정된 packing을 가지고 있다. 최대 소수성 결합으로 최대 극성 선택성을 가지고 있으며, 친실리카 반응성이 매우 낮다.(실리카에 캡슐 화학처리) “ amitriptyline”과 같은 강한 염기화합물도 중성 pH에서 우수한 대칭적인 피크모양을 제공한다. 따라서 이 컬럼의 적용 응용범위는 염기 또는 산 형태의 분석이 많은 제약산업과 천연물 분리에 적합하다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C18 ace-EPS	250 x 4.6	120 Å	3 µm	300 m2/g	18,5
ProntoSIL 300-3-C18 ace-EPS	250 x 4.6	300 Å	1.03 µm	100 m2/g	8,5
ProntoSIL 120-5-C18 ace-EPS	250 x 4.6	120 Å	5 µm	300 m2/g	18,5
ProntoSIL 200-5-C18 ace-EPS	250 x 4.6	200 Å	5 µm	200 m2/g	12,5
ProntoSIL 300-5-C18 ace-EPS	250 x 4.6	300 Å	5 µm	100 m2/g	8,5
ProntoSIL 120-10-C18 ace-EPS	250 x 4.6	120 Å	10 µm	300 m2/g	18,5

## ProntoSIL C18 AQ

- available in various pore and particle sizes
- fully end-capped
- for optimum separation of hydrophilic compounds
- good hydrophilic stability
- ProntoSIL C18 AQ the primary separation mechanism is hydrophobic interaction.

ProntoSIL C18 AQ 컬럼은 기존의 역상 컬럼으로 친수성 sample을 분석을 할 때 나타나는 스펙트럼 퍼짐 현상을 최소화하기 위해 특별히 제조된 역상 컬럼이다. 물에 용해되는 강한 극성 샘플들은 물과 함께 빠져 나가 컬럼과 상호 작용이 없어 분리가 이루어 지지 않는 현상이 발생된다. 그러나 ProntoSIL C18 AQ을 이용하면 유기 용매의 첨가 없이 물을 이동상으로 하여 친수성 sample을 분석할 수 있고, 또한 다른 C18컬럼과 마찬가지로 소수성 sample을 분리하는데 사용된다. 물론 이 충전제는 full endcapping처리가 되어 있다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C18 AQ	250 x 4.6	120 Å	3 µm	300 m2/g	14
ProntoSIL 200-3-C18 AQ	250 x 4.6	200 Å	3 µm	200 m2/g	9
ProntoSIL 120-5-C18 AQ	250 x 4.6	120 Å	5 µm	300 m2/g	14
ProntoSIL 200-5-C18 AQ	250 x 4.6	200 Å	5 µm	200 m2/g	9
ProntoSIL 120-10-C18 AQ	250 x 4.6	120 Å	10 µm	300 m2/g	14

## ProntoSIL C18 AQ PLUS

- the use in aqueous mobile phases with an organic content below 10%.
- ProntoSIL C18 AQ PLUS shows an enhanced stability at low pH's down to pH 1.
- packing shows excellent peak shapes in pure aqueous eluents but differs in shape selectivity compared to ProntoSIL C18 AQ.

ProntoSIL C18 AQ에 추가로, ProntoSIL C18 AQ PLUS는 10 %의 아래에 유기 용매와 함께 수용성 이동상의 사용을 위하여 개발되었다. ProntoSIL C18 AQ와 비교하여, ProntoSIL C18 AQ PLUS는 pH 1까지의 낮은 pH에서 우수한 안정성을 가지며, 초순수 수용액 이동상에서 우수한 피크 모양을 나타낸다. 이 컬럼의 응용은 조합 화학 분야에 적합하며, 표준 분석 조건은 0,1 % TFA가 포함된 이동상에 0 ~ 100% 유기 용매를 빠른 기ული 용리를 사용하여 분석한다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-5-C18 AQ PLUS	250 x 4.6	120 Å	5 µm	300 m2/g	17

## ProntoSIL C18 H

- available in various pore and particle sizes.
- fully end-capped.
- no non-specific adsorption

ProntoSIL C18H는 Bischoff사에서 제공하는 표준 역상 컬럼이다. 역상 크로마토그래피의 모든 영역에 적용되며, 컬럼은 full endcapping이 되어 있고, 매우 순수한 실리카를 기초로 한 제품이다. 여러 가지 종류의 particle과 pore size를 이용할 수 있어, Protein과 Peptide와 같은 거대 생체 분자의 분리에 우수한 특성을 가지고 있다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 60-3-C18 H	250 x 4.6	60 Å	3 µm	450 m2/g	18,5
ProntoSIL 120-3-C18 H	250 x 4.6	120 Å	3 µm	300 m2/g	17,5
ProntoSIL 200-3-C18 H	250 x 4.6	200 Å	3 µm	200 m2/g	11
ProntoSIL 300-3-C18 H	250 x 4.6	300 Å	3 µm	100 m2/g	7
ProntoSIL 60-5-C18 H	250 x 4.6	60 Å	5 µm	450 m2/g	18,5
ProntoSIL 120-5-C1	250 x 4.6	120 Å	5 µm	300 m2/g	17,5
ProntoSIL 200-5-C18 H	250 x 4.6	200 Å	5 µm	200 m2/g	11
ProntoSIL 300-5-C18 H	250 x 4.6	300 Å	5 µm	100 m2/g	7
ProntoSIL 120-10-C18 H	250 x 4.6	120 Å	10 µm	300 m2/g	17,5

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## ProntoSIL C18 SH

- stationary phase in the ProntoSIL line with the maximum carbon load.
- fully endcapped.
- excellent shape selectivity and stability even at pH 1.

ProntoSIL C18 SH는 최대 높은 carbon load 가지고 있어서, pH 1에서 조차 우수한 피크 선택성과 안정성을 보여준다. C18SH-bonding type은 120 Å pore size와 3, 5, 10µm particle size를 제공한다.

maximum carbon load의 특성으로 Capcell pak column을 대체하여 사용하여도 문제가 없다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C18 SH	250 x 4.6	120 Å	3 µm	300 m <sup>2</sup> /g	17
ProntoSIL 120-5-C18 SH	250 x 4.6	120 Å	5 µm	300 m <sup>2</sup> /g	17
ProntoSIL 120-10-C18 SH	250 x 4.6	120 Å	10 µm	300 m <sup>2</sup> /g	17

## ProntoSIL Eurobond C18

- Top Quality HPLC Column.
- Short Column for fast HPLC(125x4.0mm) & Standard Column(250x4.0mm).
- 가격 대 성능비가 매우 우수한 제품

ProntoSIL Eurobond C18 Column은 새롭게 출시된 제품으로 가격대 성능비가 우수하며, 단 두 가지 종류의 컬럼이 제시되어 있다. 제품은 full endcapping되어 있으며, spherical type의 충전제로 제작되었다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	L X ID in mm	End capping
ProntoSIL 120-5-Eurobond C18	1204F181PS050	120 Å	5 µm	125 x 4.0	Fully
ProntoSIL 120-5-Eurobond C18	2504F181PS050	120 Å	5 µm	250 x 4.0	Fully

## ProntoSIL C8 SH

- Classical C8-type stationary phase.
- fully endcapped.
- 300 Å packings show excellent properties for the separate protein & peptide.
- Merck사 Lichrospher B Column과 비교하여 선택성 우수.

ProntoSIL C8 Column은 전형적인 C-8 컬럼으로 full endcapping처리가 되어있다. 이 결합 기술로 pH1에서도 매우 우수한 선택성과 안정성으로 보장한다. C8 SH Column은 여러 종류의 제품을 이용할 수 있는데 특히 300 Å의 경우 단백질과 펩타이드와 같은 거대 생물의 분리에 우수한 특징을 가진다. 또한 5µm의 지지체의 경우 60 Å의 pore size를 이용할 수 있어 Merck사의 Lichrospher B 컬럼과 비교하여 선택성이 우수한 것을 보여준다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C8 SH	250 x 4.6	120 Å	3 µm	300 m <sup>2</sup> /g	10
ProntoSIL 200-3-C8 SH	250 x 4.6	200 Å	3 µm	200 m <sup>2</sup> /g	7
ProntoSIL 300-3-C8 SH	250 x 4.6	300 Å	3 µm	100 m <sup>2</sup> /g	4
ProntoSIL 60-5-C8 SH	250 x 4.6	60 Å	5 µm	450 m <sup>2</sup> /g	12
ProntoSIL 120-5-C8 SH	250 x 4.6	120 Å	5 µm	300 m <sup>2</sup> /g	10
ProntoSIL 200-5-C8 SH	250 x 4.6	200 Å	5 µm	200 m <sup>2</sup> /g	7
ProntoSIL 300-5-C8 SH	250 x 4.6	300 Å	5 µm	100 m <sup>2</sup> /g	4
ProntoSIL 120-10-C8 SH	250 x 4.6	120 Å	10 µm	300 m <sup>2</sup> /g	10



## ProntoSIL C4

- Classical C4-type stationary phase.
- fully endcapped.
- bonding technology it shows an enhanced stability even at pH 1.
- RP-mode & HIC-mode available.

ProntoSIL C4는 전형적인 C-4 컬럼으로 full endcapping처리가 되어있다. 이 결합 기술로 pH1에서도 매우 우수한 선택성과 안정성으로 보장한다. C4 Column은 RP-mode뿐만 아니라 HIC-mode를 이용하여 프로테인과 펩타이드와 같은 거대 생물의 분리에 우수한 특징을 가진다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C4	250 x 4.6	120 Å	3 µm	300 m <sup>2</sup> /g	5
ProntoSIL 300-3-C4	250 x 4.6	300 Å	3 µm	100 m <sup>2</sup> /g	5
ProntoSIL 60-5-C4	250 x 4.6	60 Å	5 µm	450 m <sup>2</sup> /g	5
ProntoSIL 120-5-C4	250 x 4.6	120 Å	5 µm	300 m <sup>2</sup> /g	5
ProntoSIL 200-5-C4	250 x 4.6	200 Å	5 µm	200 m <sup>2</sup> /g	5
ProntoSIL 300-5-C4	250 x 4.6	300 Å	5 µm	100 m <sup>2</sup> /g	5

## ProntoSIL C1

- Classical C1-type stationary phase.
- The application area is mainly the separation of non-polar solutes
- bonding technology it shows an enhanced stability even at pH 1.
- HIC-mode available.

ProntoSIL C1는 C1 결합형 정지상이다. C1 packing은 소수성 샘플의 경우 완벽하게 잔존하지 않는 특성을 가지며, 응용 범위는 비극성 샘플의 분리에 사용된다. 또한 HIC-mode를 이용하여 Proteins의 분리를 위해 사용될 수 있다. 결합 기술로 C1-bonding 은 pH 1까지 안정적입니다. 충전물은 120 와 3 그리고 5µm의 입자 크기를 이용할 수 있다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C1	250 x 4.6	120 Å	3 µm	300 m <sup>2</sup> /g	3
ProntoSIL 120-5-C1	250 x 4.6	120 Å	5 µm	300 m <sup>2</sup> /g	3

## ProntoSIL Phenyl

- RP packing & fully endcapped.
- 120 Å and particle sizes of 3 µm and 5 µm
- bonding technology it shows an enhanced stability even at pH 1.
- This packing shows an enhanced selectivity and hydrophobicity

ProntoSIL Phenyl는 C18 또는 C8와 같은 고정상과 비교하여 다른 선택성을 제공하는 역상 컬럼이다. 이 컬럼은 full end-capped처리가 되어 있다. 이 결합 기술에 의해 pH 1에서조차 우수한 안정성을 가진다. 이 충전제는 분리성과 소수성에 우수한 특성을 가지며, aromatic 화합물을 분석할 때 유용한 컬럼이다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-Phenyl	250 x 4.6	120 Å	3 µm	300 m <sup>2</sup> /g	10
ProntoSIL 60-5-Phenyl	250 x 4.6	60 Å	5 µm	450 m <sup>2</sup> /g	12
ProntoSIL 120-5-Phenyl	250 x 4.6	120 Å	5 µm	300 m <sup>2</sup> /g	9,5

## ProntoSIL Amino E

- Amino Propyl bonded phase
- fully endcapped it is perfectly suitable for the SFC of basic compounds
- three modes: NP-mode, RP-mode and IC-mode

ProntoSIL Amino E는 Amino Propyl 결합형 정지상입니다. ProntoSIL Amino와 비교하여 이 컬럼의 충전제는 full end-capped처리가 되어 있다. ProntoSIL Amino컬럼과 마찬가지로 3가지 분석 방법을 사용할 수 있다 : NP 방법, RP 방법 그리고 IC 방법. 그리고 SFC 분석에 우수한 특성을 가지고 있으며, full endcapped이라는 사실때문에 염기성 화합물등의 SFC분석을 위해 완전하게 적당하다. ProntoSIL Amino E는 오직 120 와 5 um만 이용할 수 있다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-5-Amino E	250 x 4.6	120 Å	5 µm	300 m2/g	5

## ProntoSIL Amino H

- Amino Propyl bonded phase
- fully endcapped it is perfectly suitable for the SFC of basic compounds
- three modes: NP-mode, RP-mode and IC-mode

ProntoSIL Amino H는 Amino Propyl 결합형 정지상입니다. ProntoSIL Amino와 비교하여 이 컬럼의 충전제는 높은 소수성과 다른 선택성을 보여준다. ProntoSIL Amino컬럼과 마찬가지로 3가지 분석 방법을 사용할 수 있다 : NP 방법, RP 방법 그리고 IC 방법. 이 컬럼은 SFC 분석에 다른 선택성을 보여준다. 특별한 결합 기술에 의해 역상 모드에서의 탄수화물 분석에 강하여 긴 수명을 가지고 있다. ProntoSIL Amino H는 오직 120 와 5 um만 이용할 수 있다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-5-Amino H	250 x 4.6	120 Å	5 µm	300 m2/g	4,5

## ProntoSIL CN

- cyano-propyl bonded phase
- used in normal phase mode and reversed phase mode
- quick equilibration time

ProntoSIL CN는 cyano-propyl 결합형 정지상이다. 이 컬럼은 순상 분석 방법과 역상 분석 방법에 사용될 수 있다. 역상 방법의 ProntoSIL CN의 적용 분야는 강한 염기성 샘플의 분리에 이용된다. 순상 방법의 ProntoSIL CN-support는 다른 NP-phases Silica, Amino 그리고 Diol을 보충한 선택성을 제공합니다. CN-결합상의 빠른 평형상태 시간때문에, 순상 방법에서 기울기 용리를 할 수 있는 컬럼으로 선택되어 사용된다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-CN	250 x 4.6	120 Å	3 µm	300 m2/g	5
ProntoSIL 120-5-CN	250 x 4.6	120 Å	5 µm	300 m2/g	5

## ProntoSIL OH

- Diol bonded phase
- The Diol packing is an alternative to the silica-packings
- packings can also be used for SEC-applications

ProntoSIL OH는 Diol 결합형 정지상입니다. Diol 충전제는 silica-packings을 대체할 수 있다. 이 충전제의 평형 시간은 실리카 충전제와 비교하여 더 짧으며, 그 선택성은 비교할 수 있다. 충전제의 보다 낮은 작용으로 인하여 크기배제크로마토그래피에 사용될 수 있다. OH-bonding type은 120 Å 과 3, 5 um의 입자 크기를 이용할 수 있다

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-OH	250 x 4.6	120 Å	3 µm	300 m2/g	4
ProntoSIL 120-5-OH	250 x 4.6	120 Å	5 µm	300 m2/g	4

## ProntoSIL C30

- stationary phase with a high carbon load
- excellent shape selectivity and stability even at pH 1
- separation of isomers of carotenoids and other long alkyl chain solutes
- The 300 Å packing is also available with endcapping.

ProntoSIL C30는 높은 carbon load를 가진 고정상으로, 매우 조밀하게 base material에 고정상이 많이 결합되어 있어서 pH 1에서도 우수한 피크 선택성과 안정성을 가진다. C30-bonding 형은 여러 가지 종류의 컬럼을 이용할 수 있으며, 특히 넓은 기공 지지체는 증진된 피크 선택성을 보인다. C30 고정상의 적용 분야는 carotenoides와 고전적인 C18 컬럼들에 의해 분리되지 않는 다른 긴 알킬기 사슬 용질들의 동질 이성체의 분리에 사용된다. 특히 300 Å packing 은 endcapping하여 사용할 수 있다.

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-3-C30	250 x 4.6	120 Å	3 µm	300 m2/g	25
ProntoSIL 200-3-C30	250 x 4.6	200 Å	3 µm	200 m2/g	20
ProntoSIL 200-5-C30	250 x 4.6	200 Å	5 µm	200 m2/g	20
ProntoSIL 200-10-C30	250 x 4.6	200 Å	10 µm	200 m2/g	20
ProntoSIL 300-3-C30	250 x 4.6	300 Å	3 µm	100 m2/g	13
ProntoSIL 300-5-C30	250 x 4.6	300 Å	5 µm	100 m2/g	13
ProntoSIL 300-3-C30 EC	250 x 4.6	300 Å	3 µm	100 m2/g	13
ProntoSIL 300-5-C30 EC	250 x 4.6	300 Å	5 µm	100 m2/g	13

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## ProntoSIL Chiral AX

- weak anion exchanger
- two selectors Quinine and Quinidine
- suitable for the chiral separation of acidic analytes like amino acids, peptides and acidic pharmaceuticals
- used in the RP mode or the non aqueous reversed phase mode (NARP)

ProntoSIL Chiral AX 컬럼은 두 선택자인 Quinine와 Quinidine와 같이 이용할 수 있는 약 음이온 교환체이다. 컬럼들은 아미노산, 펩티드 그리고 산성 제약품과 같은 산성 analytes의 chiral 분리를 위해 적합하다. 약간의 아세트산이 이동상에 첨가되면 역상 분석 방법 또는 비수용성 역상 방법(NARP)을 사용할 수 있다. 이 두 선택 방법은 상호 보완적이다. 만약 R enantiomer (O성질)체가 Quinine 컬럼에 Senantiomer전에 Quinidine 컬럼에 추출되면 용출 순서는 반대로 나올 것이다

### Ordering Information

Packing	L X ID in mm	Pore size	Particle size	Surface area	%C
ProntoSIL 120-5-Chiral AX QN-1	0000F10EPS050	120 Å	5 µm	300 m2/g	-
ProntoSIL 120-5-Chiral AX QD-1	0000F10FPS050	120 Å	5 µm	300 m2/g	-

## ProntoSIL ENVIRO-PHE

- For the analysis of phenols according to EPA-604/625

페놀 분석용 컬럼

### Ordering Information

Packing	P/N	Pore size	Particle size	Form	End capping
ProntoSIL 120-3-Enviro-PHE 125 x 4.6mm	1246F440PS030	120 Å	3 µm	Spherical	fully
ProntoSIL Guard Cartridges (5 each) *Cartridge Holder Required ,10x4.0mm	6301F440PS030	120 Å	3 µm	-	-

## ProntoSIL ENVIRO-PTL

- For the analysis of aromatic hydrocarbons in petrochemical products

벤젠링을 갖는 석유화학제품 분석용 컬럼, Diesel 연료 분석등에 사용된다.

### Ordering Information

Packing	P/N	Pore size	Particle size	Form	End capping
ProntoSIL 120-5-Enviro-PTL 250 x 4.6mm	2546C450P050	120 Å	5 µm	Spherical	-
ProntoSIL Guard Cartridges (5 each) *Cartridge Holder Required ,10x4.0mm	6302C450PS050	120 Å	5 µm	-	-



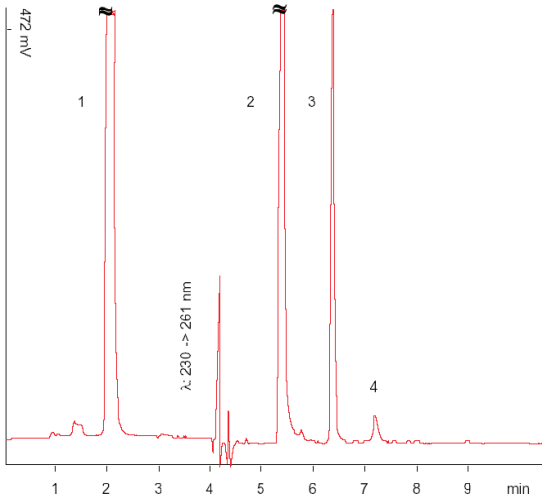
# Application - 1

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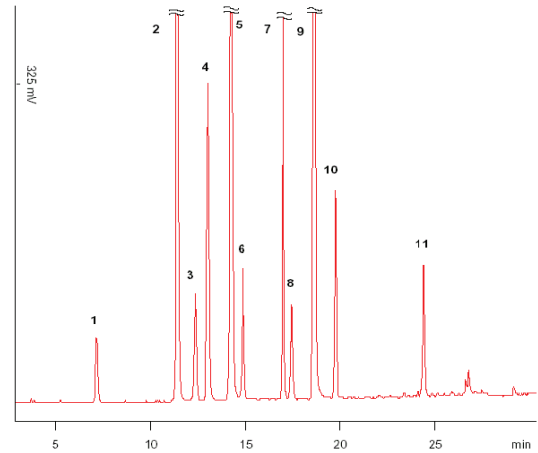
## Cold medicine ProntoSIL Eurobond C18 5 µm

Part number	1204F181PS050	Detection	UV 230nm, 0-240 s; UV 261nm, 240-720 s
Dimension	125 x 4.0 mm	Temperature	20 °C
Eluent	A: 5mM Li <sub>2</sub> SO <sub>4</sub> in H <sub>2</sub> O <sub>4</sub> ; pH 2.1 B: ACN/50mM H <sub>3</sub> PO <sub>4</sub>	Injection	3 µl
Gradient	0%B, 0-120 s; 0_12%B, 120-184 s; 12-17% B, 184-500 s; 17-39% B, 500-720 s	Sample	1 : Ascorbic acid 2 : Paracetamol 3 : Coffein 4 : Chlorphenamin
Flow	1 ml/min		



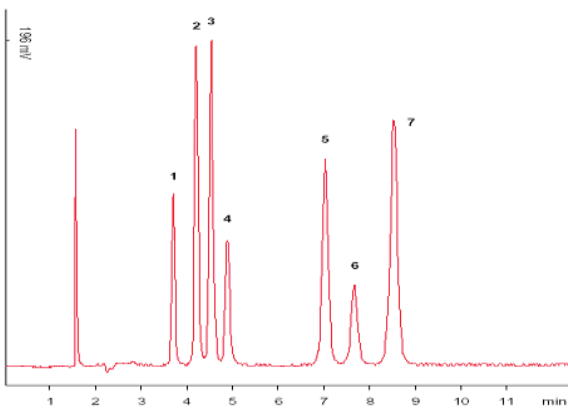
## Phenol mixture EPA 604/625 ProntoSIL EnviroPHE

Part number	1246F440PS30	Sample	Supelco Calibration Standard (P/N: 4-8859)
Dimension	125 x 4.6 mm		1: Phenol
Eluent	A: H <sub>2</sub> O/1% HAc B: MeOH/1% HAc		2: 4-Nitrophenol
Gradient	5-100% B, 0-30min		3: 2,4-Dinitrophenol
Flow	1 ml/min		4: 2-Chlorophenol
Detection	UV 280 nm		5: 2-Nitrophenol
Temperature	25 °C		6: 2,4-Dimethylphenol
Injection	2 µl		7: 4,6-Dinitro-o-Cresol
			8: 2,4-Dichlorophenol
			9: 4-Chloro-m-Cresol
			10: 2,4,6-Trichlorophenol
			11: Pentachlorophenol



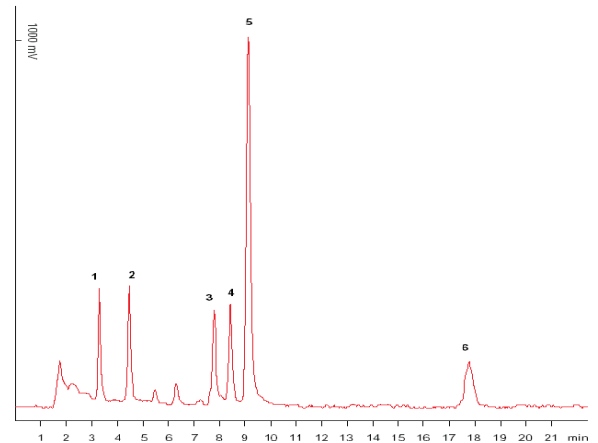
## Tricyclic Antidepressants I ProntoSIL 120-5-CN

Part number	2546F200PS050	Injection	5 µl
Dimension	250 x 4.6 mm	Concentration	50 ppm each
Eluent	A: 25mM K <sub>2</sub> HPO <sub>4</sub> (pH 7.1) B: MeOH/ACN (15/65) 25% A, 75% B	Sample	1 : Trimipramine 2 : Doxepin 3 : Amitriptyline 4 : Imipramine 5 : Nortriptyline 6 : Desipramine 7 : Protriptyline
Flow	1 ml/min		
Detection	UV 254nm		
Temperature	40 °C		



## Fat soluble Vitamins II ProntoSIL 120-3-C18 SH

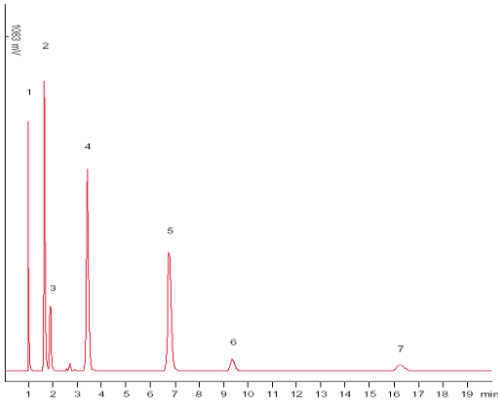
Part number	2503F180PS030	Temperature	20 °C
Dimension	250 x 3.0 mm	Injection	5 µl
Eluent	MeOH	Concentration	50-300 ppm each
Flow	1 ml/min	Sample	1 : Vitamin A 2 : Vitamin A acetate 3 : Vitamin D <sub>2</sub> 4 : Vitamin D <sub>3</sub> 5 : Vitamin E 6 : Vitamin K <sub>1</sub>
Detection	Evap. Light Scattering Detector (DDL 31) PMT: 600, T: 33 °C		





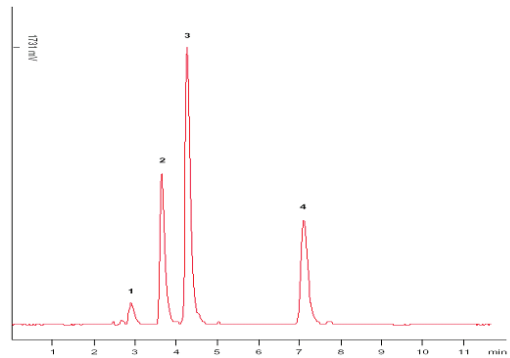
## Engelhardt test for RP phases ProntoSIL Eurobond C18 5 µm

Part number	1204F181PS050	Sample					
Dimension	125 x 4 mm	Nr.	Ret.(min)	TP	TP/m	Asym.	Name
Eluent	H <sub>2</sub> O/MeOH 51/49 (w/w)	1	0.96	-	-	-	Uracil
Flow	1 ml/min	2	1.62	6756	54048	1.49	Aniline
Detection	UV 254nm	3	1.84	7117	56937	1.33	Phenol
Temperature	40 °C	4	3.37	7433	59461	1.34	p-Ethylaniline
Injection	5 µl	5	6.75	9450	75599	1.12	N,N-Dimethyl-aniline
		6	9.33	10380	83037	1.13	Toluene
		7	16.24	10357	82856	1.05	Ethylbenzene



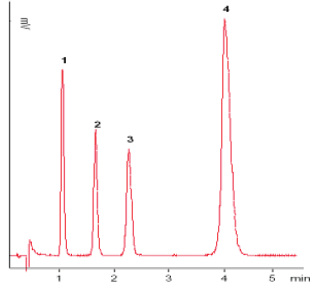
## Antirheumatic bath ingredient ProntoSIL Eurobond C18 5 µm

Part number	2504F181PS050
Dimension	250 x 4 mm
Eluent	H <sub>2</sub> O/MeOH 30/70 (w/w), 0.1% acetic acid
Flow	0.9 ml/min
Detection	UV 254nm
Temperature	20 °C
Injection	20 µl
Sample	1 : Camphor 2 : Nicotinic acid methyl easter 3 : Nicotinic acid benzyl easter 4 : Ethylene glycol monosalicylate



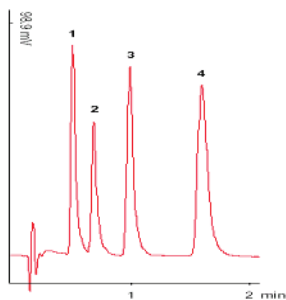
## High Speed Separation of Catecholamines ProntoSIL 120-3-C18 AQ

Part number	0404F184PS030
Dimension	33 x 4 mm
Eluent	CAT-A-Phase
Flow	1.0 ml/min
Detection	Coulometric
Temperature	30 °C
Injection	5 µl
Sample	1 : Norepinephrine 2 : Epinephrine 3 : Dihydroxybenzylamine 4 : Dopamine



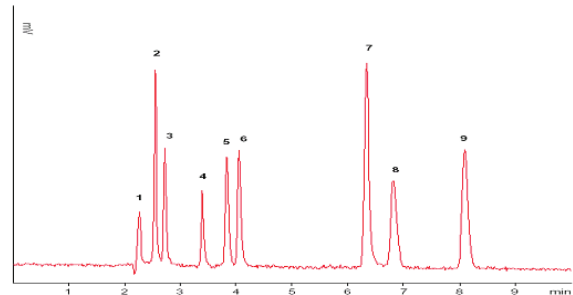
## ProntoSIL 120-3-C18 AQ

Part number	0203F184PS030
Dimension	25 x 3 mm
Eluent	ADAM-B-Phase
Flow	0.95 ml/min
Detection	Coulometric
Temperature	28 °C
Injection	1 µl
Sample	1 : Norepinephrine 2 : Epinephrine 3 : Dihydroxybenzylamine 4 : Dopamine



## Organic Acids I ProntoSIL 120-3-C18 AQ

Part number	2503F184PS030	Sample	1 : Glutamic acid 2 : Oxalic acid 3 : Tartaric acid 4 : Malic acid 5 : Ascorbic acid 6 : Acetic acid 7 : Maleic acid 8 : Citric acid 9 : Fumaric acid
Dimension	250 x 3.0 mm		
Eluent	50 mM H <sub>3</sub> PH <sub>4</sub>		
Flow	0.7 ml/min		
Detection	UV 205nm		
Temperature	22 °C		
Injection	5 µl		

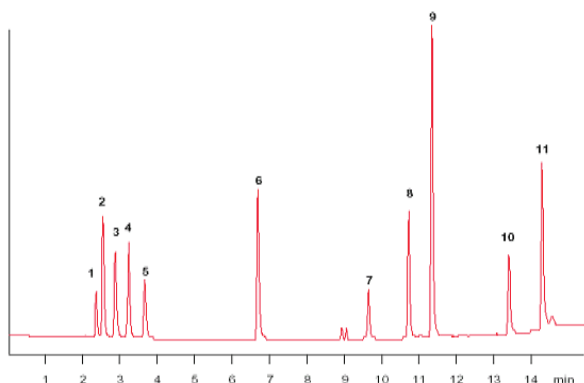






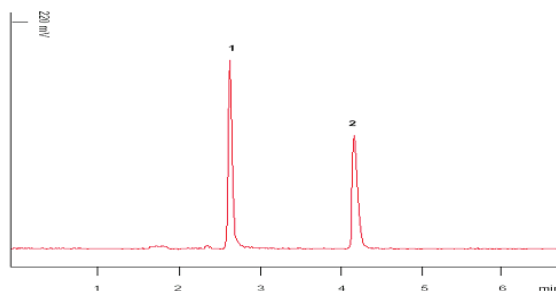
## Organic Acids II ProntoSIL 120-3-C18 AQ

Part number	2003F184PS030	Sample	1 : Oxalic acid
Dimension	300 x 3.0 mm		2 : Tartaric acid
Eluent	A: H <sub>2</sub> O/ 50 mM H <sub>3</sub> PO <sub>4</sub> B: ACN/ 50mM H <sub>3</sub> PO <sub>4</sub>		3 : Pyridine-4-carboxylic acid
Gradient	0-100% B, 0-20 min		4 : Pyridine-3-carboxylic acid
Flow	0.6 ml/min		5 : Lactic Acid
Detection	UV 215 nm		6 : Citric Acid
Temperature	25 °C		7 : Pyridine-2,6-dicarboxylic acid
Injection	5 µl		8 : 4-hydroxybenzoic acid
			9 : 3-Hydroxybenzoic acid
			10 : Benzoic acid
			11 : 2-Hydroxybenzoic acid (= Salicylic acid)



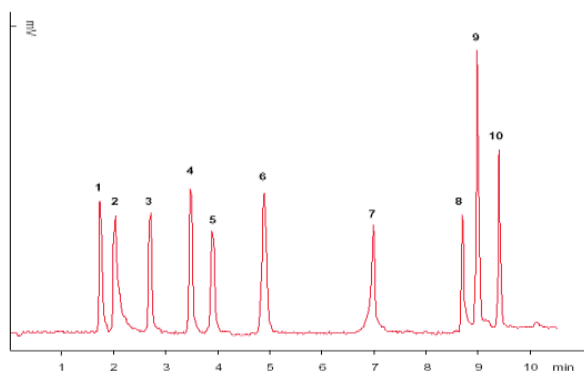
## Formic Acid / Acetic Acid ProntoSIL 120-3-C18 AQ

Part number	2503F184PS030
Dimension	250 x 3.0 mm
Eluent	100 mM H <sub>3</sub> PO <sub>4</sub>
Flow	0.7 ml/min
Detection	UV 202 nm
Temperature	22 °C
Injection	5 µl
Sample	1 : Formic acid 2 : Acetic acid



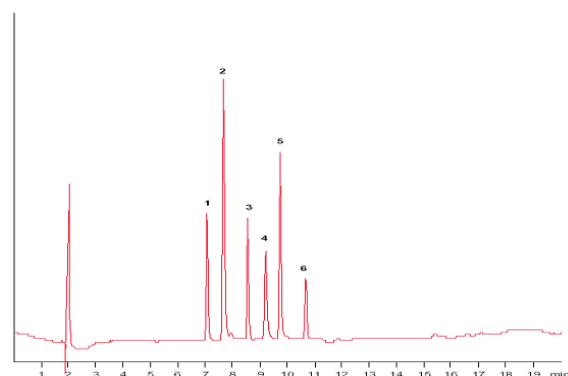
## Water soluble Vitamins ProntoSIL 120-3-C18 AQ

Part number	2003F184PS030	Sample	1 : Pyridoxamine
Dimension	200 x 3.0 mm		2 : Thiamine (Vit. B1)+impurity
Eluent	A: H <sub>2</sub> O/ 50 mM H <sub>3</sub> PO <sub>4</sub> B: ACN		3 : Ascorbic acid (Vit. C)
Gradient	0% B, 0-180 s; 0-30% B, 181-400 s; 30% B, 401-790 s		4 : Nicotinic acid (Niacin)
Flow	0.7 ml/min		5 : Nicotinamide (Vit. B <sub>3</sub> )
Detection	UV 230 nm		6 : Pyridoxal
Temperature	22 °C		7 : Pyridoxine (Vit. B <sub>6</sub> )+impurity of Vit. B <sub>12</sub>
Injection	5 µl		8 : Folic acid
			9 : Cyanocobalamin (Vit. B <sub>12</sub> )
			10 : Riboflavin (Vit. B <sub>2</sub> )



## Peptides I ProntoSIL 300-5-C18 H

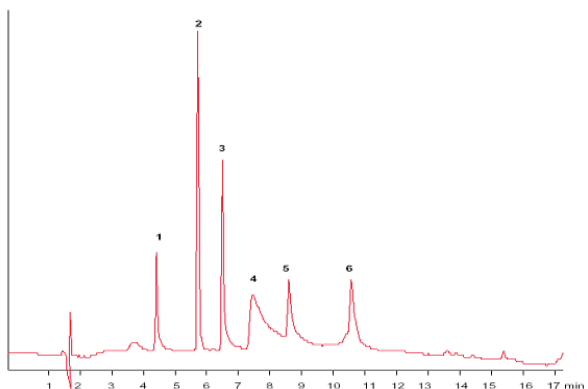
Part number	2546K185PS050	Temperature	30 °C
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	A: H <sub>2</sub> O/ 0.1% TFA B: ACN/ H <sub>2</sub> O, 70/30 (v/v) 0.1%TFA	Sample	1 : Oxytocin
Gradient	20-100% B, 0-30 min		2 : Bradykinin
Flow	1.5ml/min		3 : Angiotensin II
Detection	UV 220 nm		4 : Eledoisin
			5 : Neurotensin
			6 : Angiotensin I





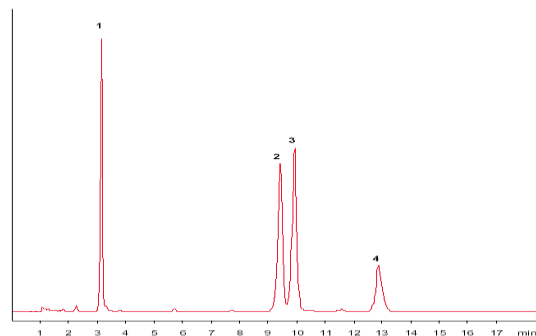
## Proteins I ProntoSIL 300-5-C18 H

Part number	2546K185PS050	Injection	5 µl
Dimension	250 x 4.6 mm	Sample	1: Ribonuclease A
Eluent	A: H <sub>2</sub> O/ 0.1% TFA		2: Insulin, bovine
	B: ACN/ H <sub>2</sub> O, 95/5 (v/v) 0.1% TFA		3: Lysozyme
Gradient	25-80% B, 0-17min		4: BSA
Flow	1.5 ml/min		5: Myoglobin
Detection	UV 220 nm		6: Ovalbumin
Temperature	30 °C		



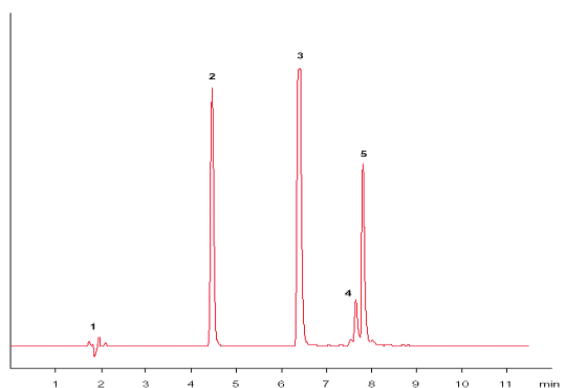
## Fat soluble Vitamins I ProntoSIL 120-3-C18 H

Part number	2003F185PS030	Sample	1: Vitamin A
Dimension	200 x 3.0 mm		2: Vitamin D2
Eluent	Acetonitrile		3: Vitamin D3
Flow	1 ml/min		4: α-Tocopherol
Detection	UV 280 nm		
Temperature	30 °C		
Injection	5 µl		



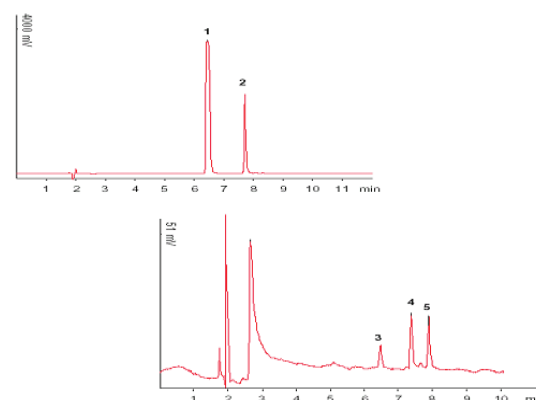
## Insulin Derivatives I ProntoSIL 300-5-C18 H

Part number	2546K185PS050	Temperature	30 °C
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	A: H <sub>2</sub> O/ 0.1% TFA	Sample	1: Protamine Sulfate
	B: ACN/ H <sub>2</sub> O, 95/5 (v/v) 0.1% TFA		2: Phenol
Gradient	25-80% B, 0-17min		3: Cresol
Flow	1.5 ml/min		4: Insulin H
Detection	UV 220 nm		5: Protamine insulin



## Insulin Derivatives II ProntoSIL 300-5-C18 H

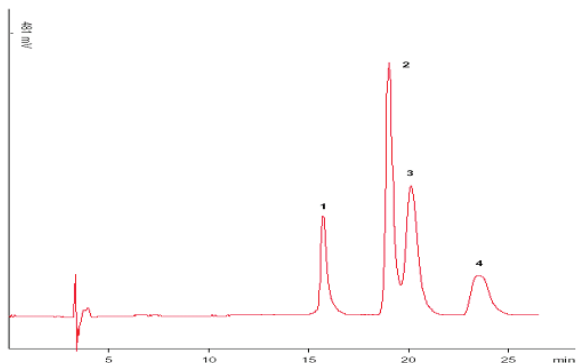
Part number	2546K185PS050	Temperature	30 °C
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	A: H <sub>2</sub> O/ 0.1% TFA	Sample	1: Cresol
	B: ACN/ H <sub>2</sub> O, 95/5 (v/v) 0.1% TFA		2: Insulin H
Gradient	25-80% B, 0-17min		3: Insulin Chain A, oxidized
Flow	1.5 ml/min		4: Insulin, bovine
Detection	UV 220 nm		5: Insulin Chain B, oxidized





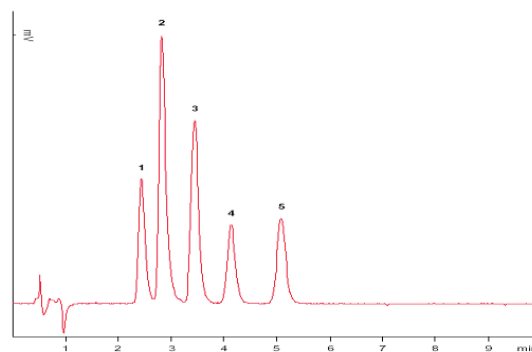
## Isomers of Tocopherol (Vitamin E) ProntoSIL 200-3-C30

Part number	2546H300PS030	Sample	1: $\delta$ -Tocopherol
Dimension	250 x 4.6 mm		2: $\gamma$ -Tocopherol
Eluent	MeOH/H <sub>2</sub> O, 96/4 (v/v)		3: $\beta$ -Tocopherol
Flow	0.9 ml/min		4: $\alpha$ -Tocopherol
Detection	Coulometric		
Temperature	25 °C		
Injection	5 $\mu$ l		



## Tricyclic Antidepressants II ProntoSIL 120-3-C18 AQ

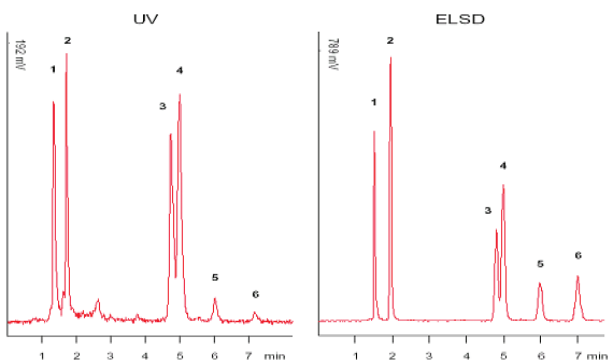
Part number	0604F184PS030	Temperature	20 °C
Dimension	53 x 4.0 mm	Injection	5 $\mu$ l
Eluent	ACN/MeOH/NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> (10 mM), 62/13/23 (v/v), titration with TEA to pH 5	Sample	1: Doxepin
Flow	0.69 ml/min		2: Imipramine
Detection	UV 254 nm		3: Nortriptyline
			4: Amitriptyline
			5: Trimipramine



## Steroids - UV vs. Evaporative Light Scattering Detection (ELSD)

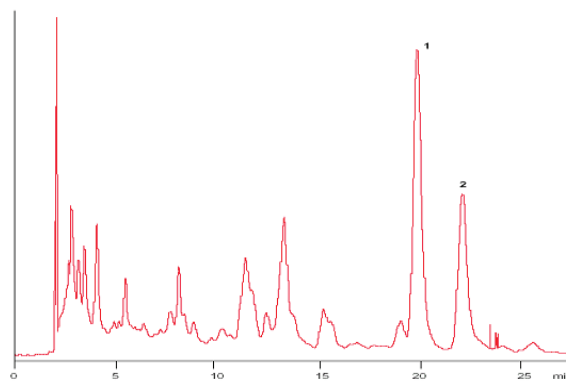
### ProntoSIL 120-3-C18 H

Part number	2003F185PS030	Concentration	70 ppm each
Dimension	200 x 3 mm	Sample	1: Hydrocortisone
Eluent	MeOH		2: Progesterone
Flow	0.65 ml/min		3: Cholecalciferol
Detection	a) UV 200 nm		4: Ergocalciferol
	b) ELSD: PMT gain: 600, T: 40 °C		5: Ergosterol
Temperature	30 °C		6: Cholesterol
Injection	5 $\mu$ l		



## Carotenoids I ProntoSIL 200-3-C30

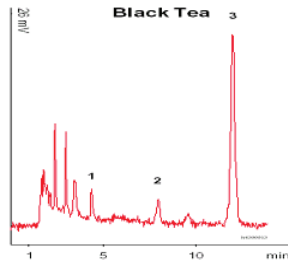
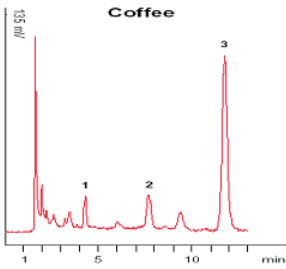
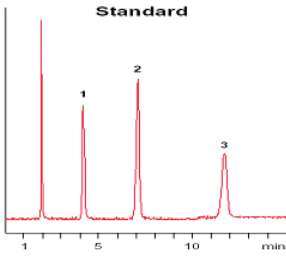
Part number	2546H300PS030	Sample	$\beta$ -Carotene, technical mixture, isomerized
Dimension	250 x 4.6 mm		1: all-trans
Eluent	MeOH/TBME, 80/20 (v/v)		2: 9-cis
Flow	1.4 ml/min		
Detection	VIS 450 nm		
Temperature	20 °C		
Injection	5 $\mu$ l		





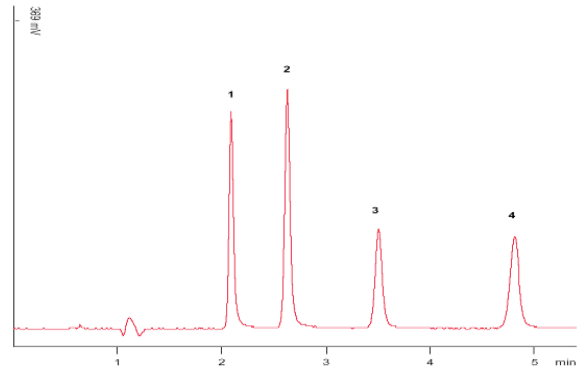
## N-Methylated Xanthines ProntoSIL 120-5-C18 AQ

Part number 1504F184PS050  
 Dimension 150 x 4.0 mm  
 Eluent 25mM NaH<sub>2</sub>PO<sub>4</sub>, pH 3/  
 MeOH 80/20 (v/v)  
 Gradient 25-80% B, 0-17min  
 Flow 1.0 ml/min  
 Detection UV 254 nm  
 Temperature 35 °C  
 Injection 10 µl  
 Sample 1 : Theobromine  
 2 : Theophylline  
 3 : Caffeine



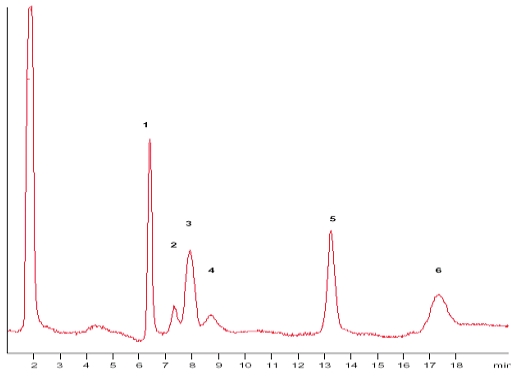
## Parabens ProntoSIL 120-3-PHENYL

Part number 1204F050PS030 Injection 10 µl  
 Dimension 125 x 4.0 mm Sample Parabens  
 Eluent 20mM K<sub>2</sub>HPO<sub>4</sub> / ACN,  
 50/50 (v/v) 1 : Methylparaben  
 Flow 1.0 ml/min 2 : Ethylparaben  
 Detection UV 254 nm 3 : Propylparaben  
 Temperature 40 °C 4 : Butylparaben



## Carbohydrates I ProntoSIL 120-3-NH<sub>2</sub>

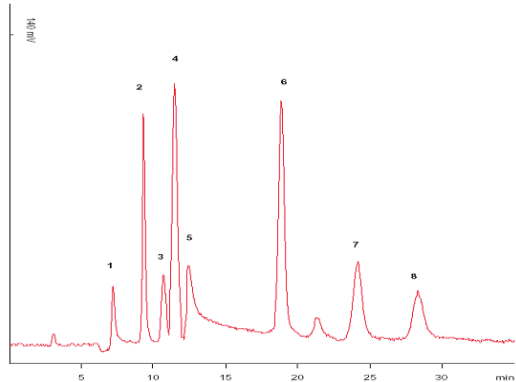
Part number 1246F190PS030 Sample 1 : Fructose  
 Dimension 125 x 4.0 mm 2 : Mannose  
 Eluent H<sub>2</sub>O/ACN, 20/80 (v/v) 3 : Glucose  
 Flow 1.0 ml/min 4 : Galactose  
 Detection RI 5 : Saccharose  
 Temperature Ambient 6 : Maltose  
 Injection 6 µl



## Carbohydrates II Evaporative Light Scattering Detection

### ProntoSIL 120-5-NH<sub>2</sub>

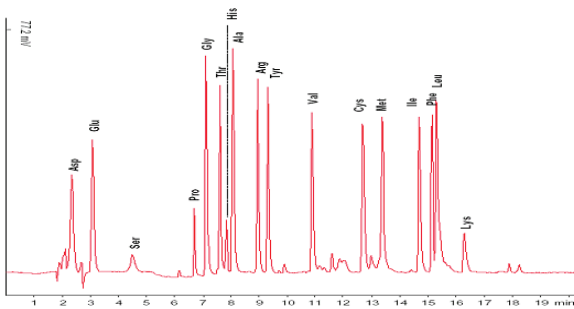
Part number 1246F190PS030 Sample 1 : Fructose  
 Dimension 125 x 4.0 mm 2 : Mannose  
 Eluent H<sub>2</sub>O/ACN, 20/80 (v/v) 3 : Glucose  
 Flow 1.0 ml/min 4 : Galactose  
 Detection RI 5 : Saccharose  
 Temperature Ambient 6 : Maltose  
 Injection 6 µl





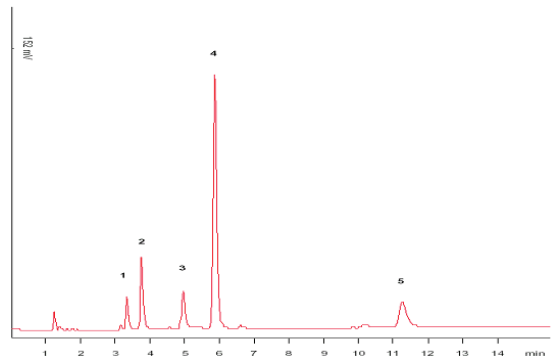
## Amino Acids I ProntoSIL 120-3-C18 H

Part number	2003F185PS030	Flow	0.6 ml/min
Dimension	200 x 3.0 mm	Detection	UV 340 nm
Eluent	A: 20 mM CH <sub>3</sub> COONa in H <sub>2</sub> O/ACN, 93/3 (v/v)	Temperature	30 °C
	B: 20 mM CH <sub>3</sub> COONa in H <sub>2</sub> O/ACN, 50/50 (v/v)	Injection	1 µl
Gradient	5-28% B, 0-144 s;	Sample	SIGMA standard AA-s-
	28-45% B, 145-560 s;		18: OPA/ Mercapto-
	45-82% B, 561-896 s		propionic acid labeled
	82-90% B, 897-1215 s		



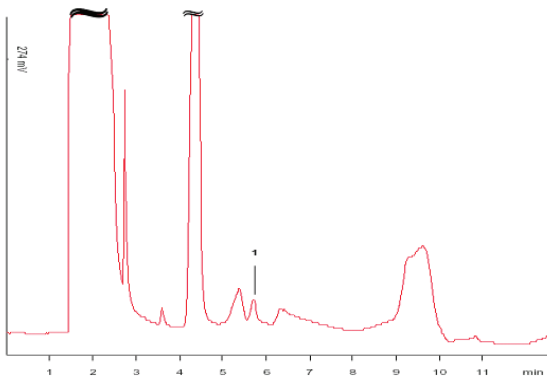
## Weak Anions - Ion Pair Chromatography ProntoSIL 120-3-C8 SH

Part number	2003F080PS030	Injection	5 µl
Dimension	200 x 3.0 mm	Sample	1 : acetic acid 2 : lactic acid 3 : malic acid 4 : iodate 5 : citric acid
Eluent	10mM KH <sub>2</sub> PO <sub>4</sub> /10 mM TBA-H <sub>3</sub> PO <sub>4</sub> , pH 2.4	Flow	0.6 ml/min
		Detection	UV 205 nm
	Temperature		25 °C



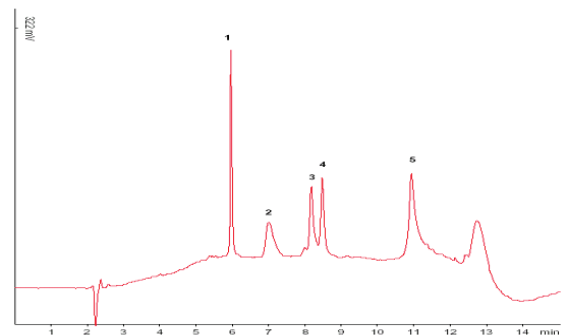
## Iodate in Galvanic Bath ProntoSIL 120-3-C18 SH

Part number	2546F180PS050	Injection	20 µl
Dimension	200 x 4.6 mm	Sample	Galvanic bath, technical
Eluent	10mM KH <sub>2</sub> PO <sub>4</sub> / 2 mM TBA-H <sub>3</sub> PO <sub>4</sub> , pH 1.95		1 : iodate
		Flow	1 ml/min
	Detection		UV 196 nm
	Temperature		25 °C



## Proteins II ProntoSIL 300-3-C4

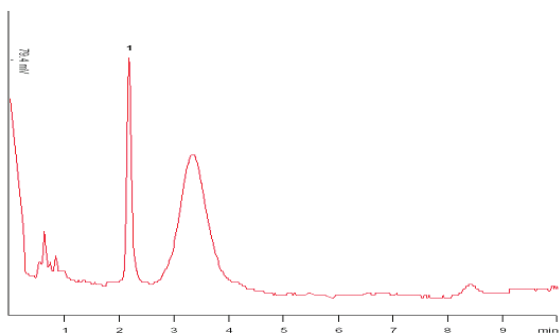
Part number	2003K040PS030	Detection	UV 220 nm
Dimension	200 x 3.0 mm	Temperature	30 °C
Eluent	A: H <sub>2</sub> O/0.1% TFA	Injection	5 µl
	B: ACN/H <sub>2</sub> O, 95/5 (v/v)	Sample	1 : Cytochrome c 2 : Fibrinogen, human 3 : Chymotrypsinogen 4 : β-Lactoglobulin 5 : Thyroglobulin
Gradient	10-40% B, 0-218 s;	Flow	0.6 ml/min
	40-47% B, 219-512 s;		
	47-100% B, 513-612 s		





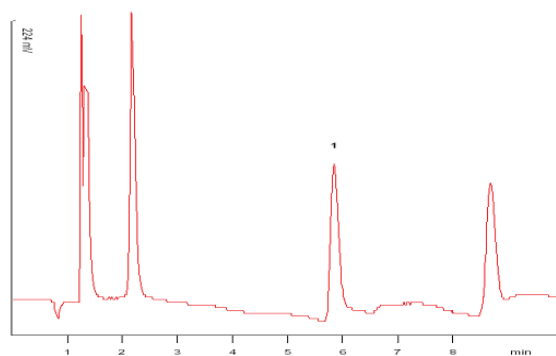
## Peroxide ProntoSIL 120-3-C18 H

Part number	0603F185PS030	Detection	Coulometric
Dimension	53 x 3.0 mm	Temperature	25 °C
Eluent	A: 35mM citric acid/ 85mM sodium acetate/ 0.5mM heptane sulphonate: pH 4.3 B: MeCH A/B: 99.7/0.3 (w/w)	Injection	5 µl
Flow	0.5 ml/min	Concentration	500 ppb
		Sample	1 : Perbenzoic acid t-butyl ester



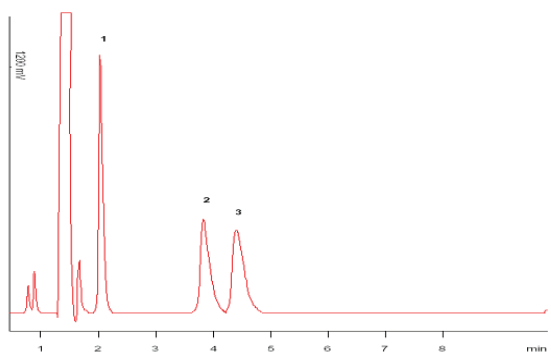
## 5-Aminolevulinic Acid ProntoSIL 120-3-C18 H

Part number	1204F185PS030	Temperature	26 °C
Dimension	125 x 4.6 mm	Injection	10 µl
Eluent	H <sub>2</sub> O/MeOH/THF, 90/6/4 (v/v) 0.5 mM octane sulphonic acid (sodium salt): pH 3.26	Concentration	100 ppb
Flow	1 ml/min	Sample	1 : 5-Aminolevulinic acid
Detection	Conductivity; FS: 5 µS		



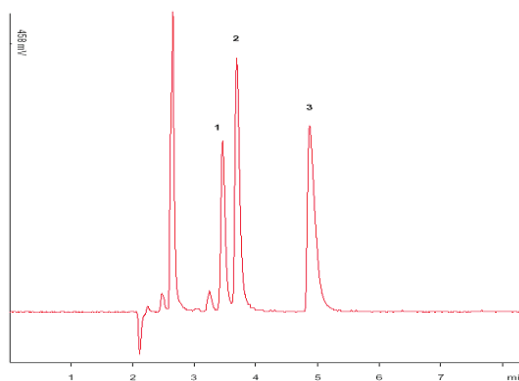
## Alcohols I ProntoSIL 120-5-C18 AQ

Part number	1546F184PS050	Injection	10 µl
Dimension	150 x 4.6 mm	Concentration	10 ppb each
Eluent	H <sub>2</sub> O/MeOH, 96/4 (v/v) 0.8 mM Caps; pH 2.5	Sample	1 : Ethanol 2 : Isopropanol 3 : n-Propanol
Flow	1.1 ml/min		
Detection	Indirect Conductivity; FS: 500 µS		
Temperature	26 °C		



## Dihydroxybenzoic Acids ProntoSIL 120-3-CN

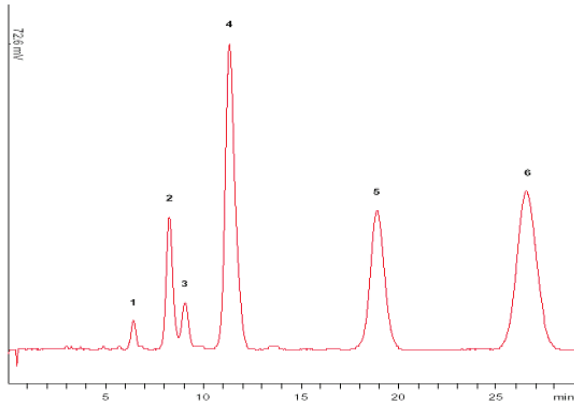
Part number	2003F200PS030	Temperature	20 °C
Dimension	200 x 3 mm	Injection	5 µl
Eluent	30mM Sodium acetate/ 30mM Sodium Citrate; pH 4.6 0.5 ml/min	Concentration	1.8 mMol each
Flow	0.5 ml/min	Sample	1 : 2,3-Dihydroxybenzoic Acid 2 : 2,5-Dihydroxybenzoic Acid 3 : Salicylic Acid (1,2-DHBA)
Detection	UV 220 nm		





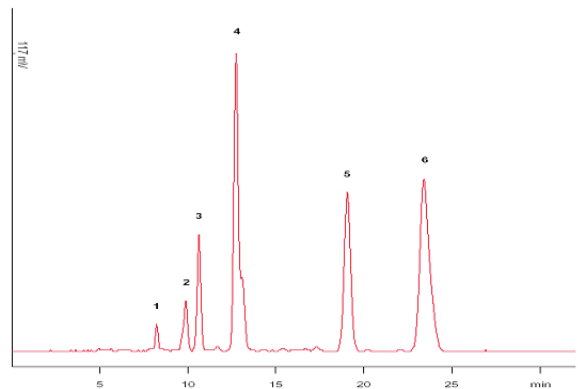
## Bitter ingredients of hop I ProntoSIL 120-5-C18 SH

Part number	0604F180PS050	Injection	10 µl
Dimension	53 x 4 mm	Sample	Hop CO <sub>2</sub> -extract
Eluent	H <sub>2</sub> O/MeOH 25/75 (v/v) + 50 mM H <sub>3</sub> PO <sub>4</sub>		1: not identified
Flow	1 ml/min		2: Cohumulon
Detection	UV 314 nm		3: Deoxyhumulon
Temperature	21 °C		4: n-plus Adhumulon
			5: Colupulon
			6: n-plus Colupulon



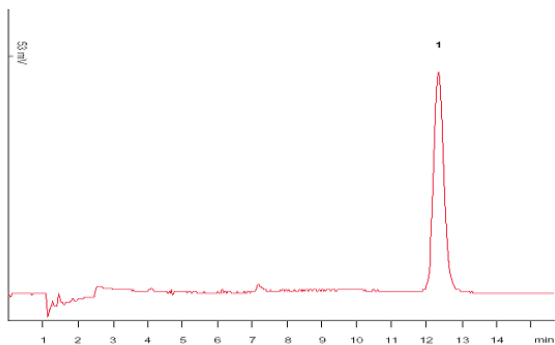
## Bitter ingredients of hop II ProntoSIL 120-5-C18 SH

Part number	2504F080PS050	Injection	10 µl
Dimension	250 x 4 mm	Sample	Hop CO <sub>2</sub> -extract
Eluent	H <sub>2</sub> O/MeOH 20/80 (v/v) + 50 mM H <sub>3</sub> PO <sub>4</sub>		1: not identified
Flow	1 ml/min		2: Cohumulon
Detection	UV 314 nm		3: Deoxyhumulon
Temperature	21 °C		4: n-plus Adhumulon
			5: Colupulon
			6: n-plus Colupulon



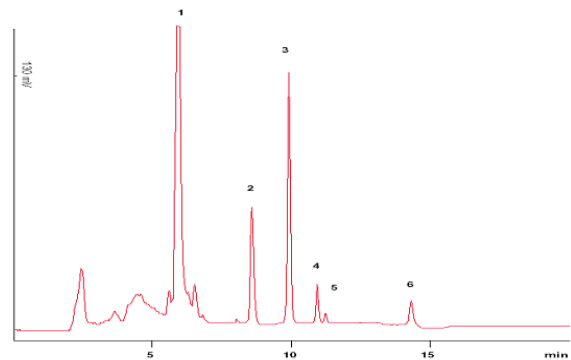
## Melatonin ProntoSIL 120-3-C18 H

Part number	1003F185PS030	Injection	10 µl
Dimension	100 x 3 mm	concentration	10 ppb
Eluent	ESA CAT-A Phase	Sample	1: Melatonin
Flow	0.5 ml/min		
Detection	Coulometric		
Temperature	25 °C		



## Aldehydes and Ketones I: DNPH Derivatives in Galvanic Bath ProntoSIL 120-5-C18 H

Part number	2546F185PS050	Injection	50 µl
Dimension	250 x 4.6 mm	concentration	10 ppb
Eluent	A: H <sub>2</sub> O; B: ACN	Sample	1: DNPH
Gradient	40% B, 0-60 s; 40-60% B, 61-390 s; 60-80% B, 391-480 s		2: Formaldehyde
Flow	1 ml/min		3: Acetaldehyde
Detection	UV 360 nm		4: Acetone
Temperature	30 °C		5: Propanal
			6: Pentanal

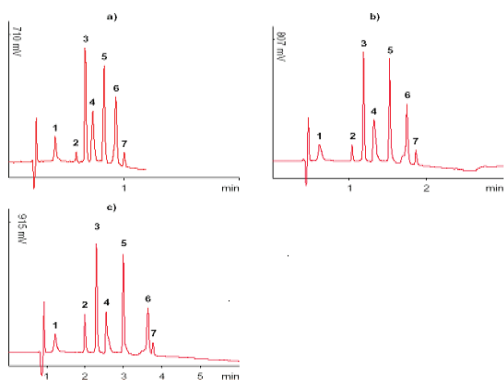






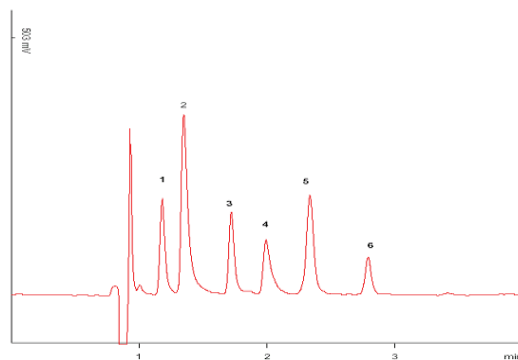
## Fast Separation of Proteins ProntoSIL 300-3-C18 H

Part number	0746K18PS030	Detection	UV 220 nm
Dimension	75 x 4.6 mm	Temperature	30 °C
Eluent	A: H <sub>2</sub> O/0.1% TFA B: ACN/H <sub>2</sub> O 95/5 (w/w)/0.1% TFA	Injection	5 µl
Gradient	a) 29-48% B, 0-25 s; 48-100% B, 25-65 s b) 29-48% B, 0-49 s; 48-100% B, 49-130 s c) 29-100% B, 0-360 s	Sample	1: Ribouclease A 2: Insulin, bovine 3: Lysozyme 4: BSA 5: Myoglobin 6: Ovalbumin 7: not identified
Flow	a) 4ml/min; b) 2ml/min; c) 1ml/min		



## Fast Separation of Peptides ProntoSIL 300-3-C18 H

Part number	0746K18PS030	Temperature	30 °C
Dimension	75 x 4.6 mm	Injection	5 µl
Eluent	A: H <sub>2</sub> O/0.1% TFA B: ACN/H <sub>2</sub> O 70/30 (w/w), 0.1% TFA	Sample	1: Oxytocin 2: Bradykinin 3: Angiotensin I 4: Eledoisin 5: Neurotensin 6: Angiotensin II
Gradient	35-80% B, 0-480 s		
Flow	1 ml/min		
Detection	UV 220 nm		



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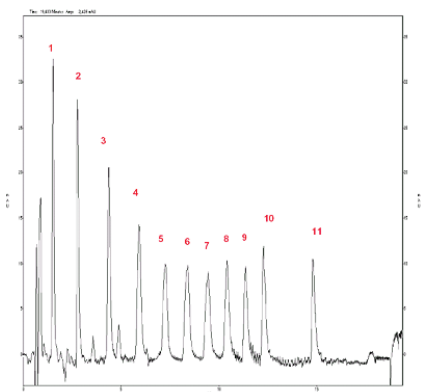
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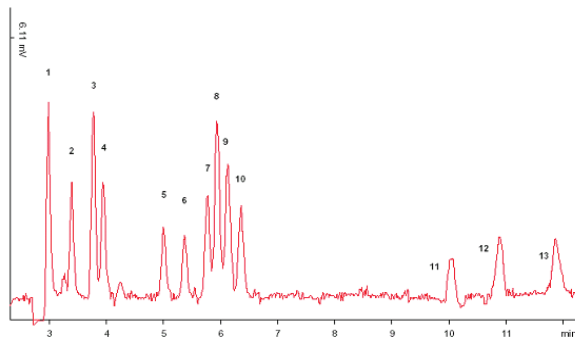
## Ketones I ProntoSIL 120-3-C18 AQ

Part number	0203F184PS030	Sample	1: Tetramethylketone
Dimension	25 x 3 mm		2: 2-Pentanone
Eluent	A: H <sub>2</sub> O B: ACN		3: 2-Hexanone
Gradient	10-100% B, 0-18 min		4: 2-Hexanone
Flow	0.35 ml/min		5: 2-Octanone
Detection	UV 270 nm		6 2-Nonanone
Temperature	30 °C		7: 2-Decanone
Injection	2 µl		8: 2-Undecanone
			9: 2-Dodecanone
			10: 2-Tridecanone
			11: 2-Hexadecanone



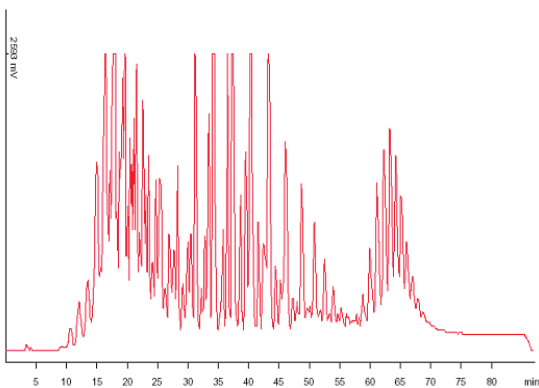
## Organic Acids III ProntoSIL 120-3-C18 AQ

Part number	3003F184PS030	Sample	1: oxalic acid 150 ppm
Dimension	300 x 3 mm		2: not identified
Eluent	5 mM Li <sub>2</sub> So <sub>4</sub> / H <sub>2</sub> SO <sub>4</sub> pH 2.81		3: tartaric acid 150 ppm
Flow	0.56 ml/min		4: quinic acid
Detection	RI		5: malic acid
Temperature	20 °C		6: malonic acid
Injection	10 µl		7: shikimic acid
Concentration	300 ppm each, except 1,3		8: lactic acid
			9: ascorbic acid
			10: acetic acid
			11: citric acid
			12: fumaric acid
			13: succinic acid



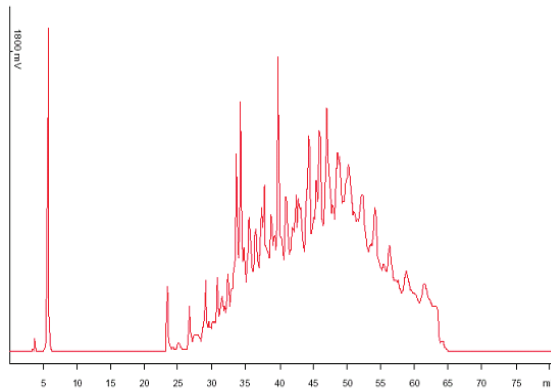
## Coconat Fatty Acid Ethoxylates 10 EO ProtoSIL 120-5-NH<sub>2</sub>

Part number	2546F190PS050	Flow	1 ml/min
Dimension	250 x 4.6 mm	Detection	Evap. Light Scattering Detector (ELSD), model DDI 31; PMT: 300,
Eluent	A: n-hexane B: acetone		T: 42 °C, p(air): 1bar
Gradient	3-20% B, 0-770 s; 20-38% B, 771-2600 s; 38-70% B, 2601-3600 s 70% B, 3600-4900 s	Temperature	30 °C
		Injection	50 µl



## Castor oil Ethoxylates 20 EO ProtoSIL 120-5-NH<sub>2</sub>

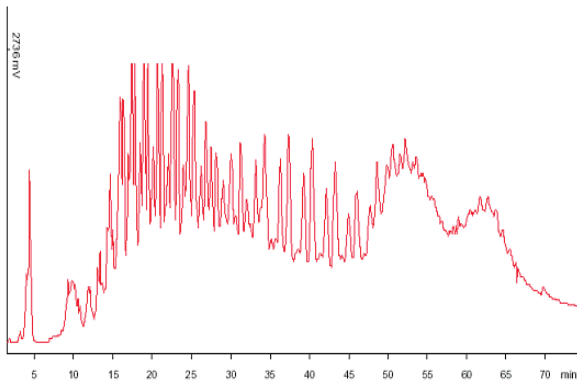
Part number	2546F190PS050	Detection	Evap. Light Scattering Detector (ELSD), model DDI 31; PMT: 500,
Dimension	250 x 4.6 mm		T: 42 °C, p(air): 1bar
Eluent	A: n-hexane B: acetone	Temperature	30 °C
Gradient	0-5% B, 0-1200 s; 5-40% B, 2601-3600 s 40% B, 2601-3600 s	Injection	50 µl
Flow	1 ml/min		





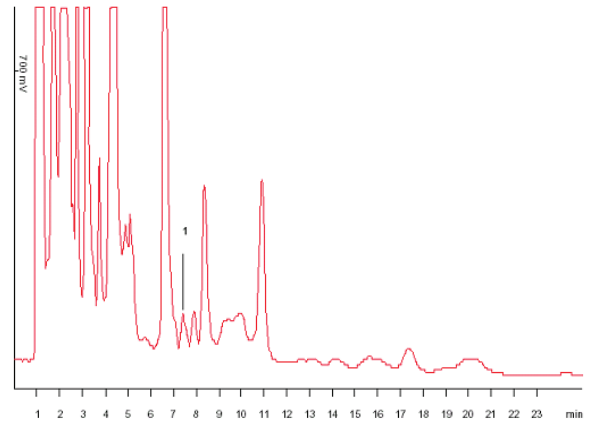
**Soybean oil  
Ethoxylates 20 EO  
ProtoSIL 120-5-NH<sub>2</sub>**

Part number	2546F190PS050	Flow	1 ml/min
Dimension	250 x 4.6 mm	Detection	Evap. Light Scattering Detector (ELSD), model DDI 31; PMT: 300, T: 42 °C, p(air): 1bar
Eluent	A: n-hexane B: acetone	Temperature	30 °C
Gradient	3-20% B, 0-770 s; 20-38% B, 771-2600 s; 38-70% B, 2601-3600 s; 70% B, 2601-3600 s	Injection	50 µl



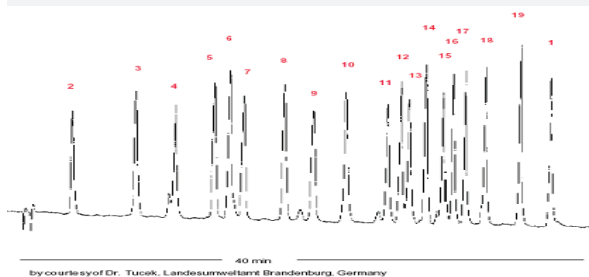
**Calcium-DL-2-Hydroxy-4-  
methylthiobutyrate in  
Animal Food  
ProtoSIL 120-5-NH<sub>2</sub>**

Part number	1003F185PS030	Flow	0.55 ml/min
Dimension	100 x 3 mm	Detection	Coulometric
Eluent	A: 75 mM NaH <sub>2</sub> PO <sub>4</sub> / 0.2 mM heptanesulfonic acid (sodium salt), pH 2.9 B: ACN; A/B 98/2 (v/v)	Temperature	25 °C
Injection	10 µl		



**Aldehydes and Ketones  
as DNPH Derivatives  
ProntoSIL 120-5-C18 H**

Part number	2504F185PS050	Sample	1: Nonanal (internal standard) 2: 2,4-Dinitrophenylhydrazine 3: Formaldehyde 4: Acetaldehyde 5: Acetone 6: Acrolein 7: Propanal 8: Crotonic Aldehyde 9: n-Butanal 10: Benzaldehyde 11: Pentanal 12: 2-Methylbenzaldehyde 13: 4-Methylbenzaldehyde 14: 3,3-Dimethylbutanone 15: Hexanal 16: 2,4-Dimethylbenzaldehyde 17: 2,4-dimethylpentanone 18: Heptanal 19: Octanal
Dimension	250 x 4.0 mm		
Eluent/Gradient (final compositions of linear steps are given (v/v/v ratios): 0-5 min isocratic: THE/ACN/H <sub>2</sub> O (16/25/59) 10 min. The/ACN/H <sub>2</sub> O (10/40/50) 20 min. The/ACN/H <sub>2</sub> O (0/60/40) 30 min. The/ACN/H <sub>2</sub> O (0/80/20) 40 min. The/ACN/H <sub>2</sub> O (0/100/0) 45 min. The/ACN/H <sub>2</sub> O (16/25/59)			
Flow	1.3 ml/min		
Detection	UV 360 nm		
Temperature	30 °C		
Injection	10 µl		

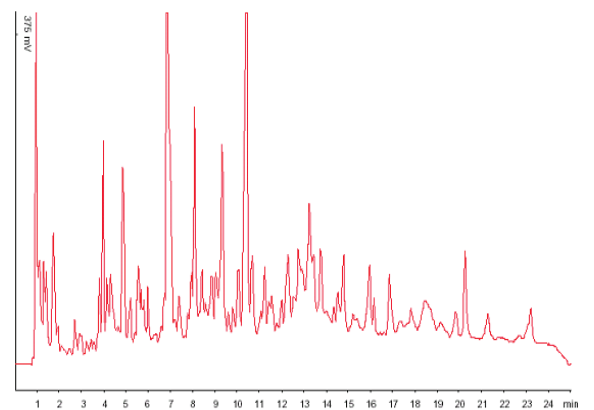


by courtesy of Dr. Tucek, Landesumweltamt Brandenburg, Germany



**Tryptic digest of Casein  
Peptone  
ProntoSIL 120-3-C18 AQ**

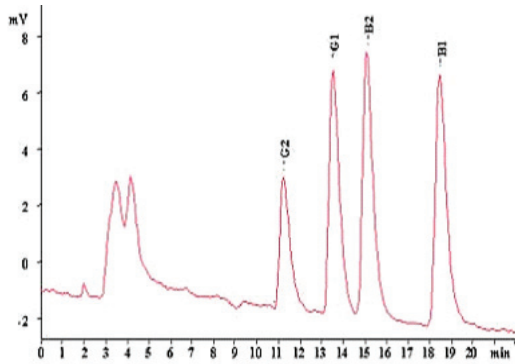
Part number	0746K180PS030	Flow	1 ml/min
Dimension	75 x 4.6 mm	Detection	UV 220 nm
Eluent	A: H <sub>2</sub> O/0.1% TFA B: ACN/ H <sub>2</sub> O 70/30 (v/v), 0.1% TFA	Temperature	30 °C
Gradient	0-40% B, 0-1400 s 40-0% B, 1401-1481 s	Injection	5 µl
Sample	Tryptic digest of casein peptone		





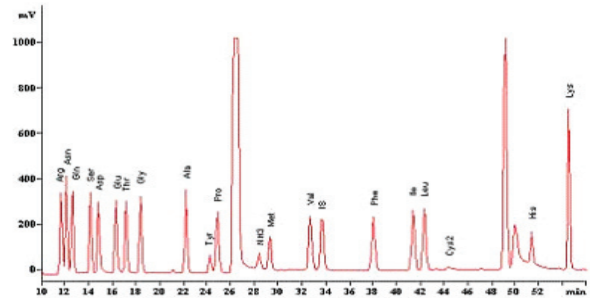
## Aflatoxines with KBr Derivatization ProntoSIL 120-5-C18 AQ

Part number	2546F184PS050	Temperature	30 °C
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	ACN/MeOH/H <sub>2</sub> O 20/20/60 (v/v/v)	Sample	Aflatoxin-Standard G2: 60 fg/ml G1: 100 fg/ml B2: 50 fg/ml B1: 90 fg/ml Injection: 100 µl
Flow	1.0 ml/min		
Detection	Fluorescence Detector Model 8470 Ex: 365nm Em: 429nm		



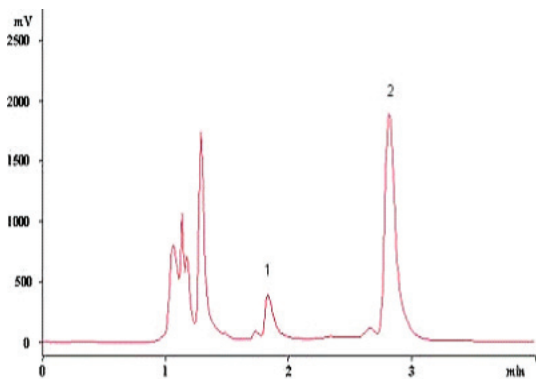
## Amino Acids with FMOC ProntoSIL-AA-FMOC 5.0µm

Part number	2504F470PS050	Detection	Fluorescence Ex: 263 nm Em: 313 nm
Dimension	250 x 4.0 mm	Temperature	30 °C
Eluent	A: 50mMCH <sub>3</sub> COONapH4,2,5%THF B: ACN	Injection	10 µl
Flow	1.0 ml/min	Sample	SIGMA standard AA-S-18 + Asn, Gln, IS (β-tAla) FMOC labeled
Gradient	20-36% B, 0-20 min 36-38% B, 20-28 min 38% B, 28-34 min 38-59% B, 34-51 min 59-67% B, 51-56 min		



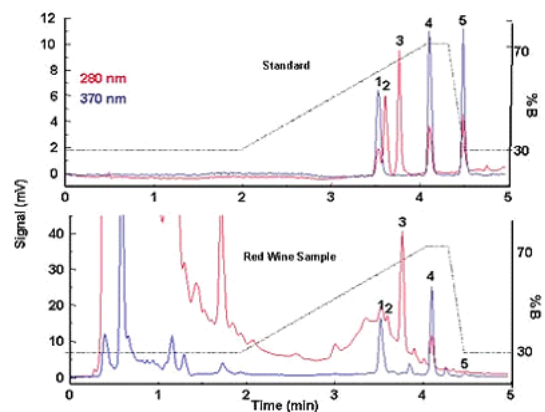
## Chinin and Saccharin in Beverages ProntoSIL-120-5-C18 H 5.0 µm

Part number	1204F185PS050	Temperature	25 °C
Dimension	125 x 4.0 mm	Injection	20 µl
Eluent	MeOH/H <sub>2</sub> O 70/30 (v/v) + 5ml/l H <sub>3</sub> PO <sub>4</sub>	Sample	Bitter Lemon Light 1: Quinine 2: Saccharin
Flow	1.0 ml/min		
Detection	UV 210 nm		



## Flavonoids in Red Wine ProntoSIL 120-5-C8 ace-EPS 5.0µm

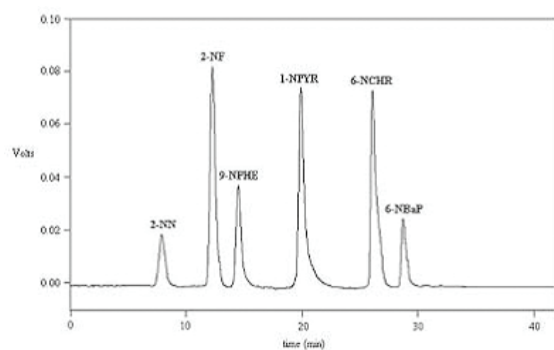
Part number	1204F08APS050	Detection	UV 280 nm (Stilbenes) 370 nm (Flavonoides)
Dimension	125 x 4.0 mm	Temperature	40 °C
Eluent	A: 10 mM NaH <sub>2</sub> PO <sub>4</sub> pH 3.0 B: ACN	Injection	25 µl
Flow	2.5 ml/min	Sample	Red Wine 1: Myricetin 2: cis- Resveratrol 3: trans- Resveratrol 4: Quercetin 5: Caempferol
Gradient	Gradient: 30% B, 0-2 min 30-70% B, 2-4 min 70% B, 4-4.4 min 70-30% B, 4.4-4.5min 30% B, 4.5-5.5min		





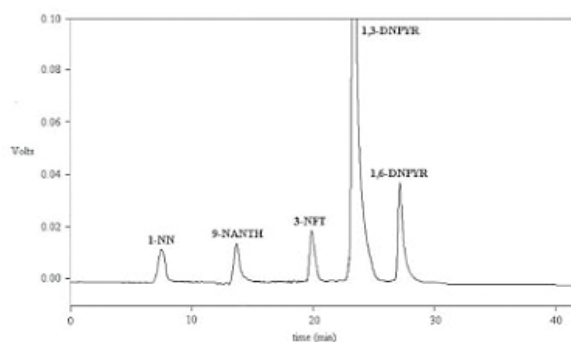
## Analysis of Nitro-PAH with Fluorescence Detection (I) ProntoSIL 120-3-Phenyl

Part number	1204F050PS030	Temperature	25 °C
Dimension	125 x 4.0 mm	Injection	20 µl
Eluent	A: MeOH/H <sub>2</sub> O 60/40 (v/v) B: MeOH 0 % B hold for 13 min, 0 – 100 % B in 29 min	Sample	Nitro-PAH Mix1
Flow	0.8 ml/min		
Detection	Fluorescence Detector Model 8470 wavelength program		



## Analysis of Nitro-PAH with Fluorescence Detection (II) ProntoSIL 120-3-Phenyl

Part number	1204F050PS030	Temperature	25 °C
Dimension	125 x 4.0 mm	Injection	20 µl
Eluent	A: MeOH/H <sub>2</sub> O 60/40 (v/v) B: MeOH 0 % B hold for 13 min, 0 – 100 % B in 29 min	Sample	Nitro-PAH Mix2
Flow	0.8 ml/min		
Detection	Fluorescence Detector Model 8470 wavelength program		



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# ProntoSIL HPLC Column Application - 3

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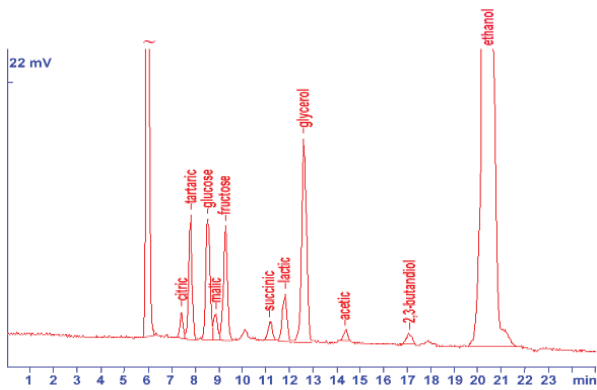
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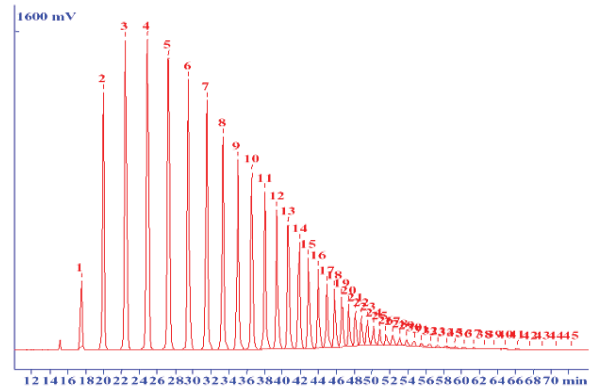
## Carbohydrates, Organic Acids and Alcohols in Wine Carbohydrate H<sup>+</sup>

Part number 00253776  
 Dimension 300 x 7.8 mm  
 Eluent 1.25 mM H<sub>2</sub>SO<sub>4</sub>  
 Flow 0.6 ml/min  
 Detection RI  
 Temperature 45 °C  
 Injection 50 µl  
 Sample Wine Complet Standard



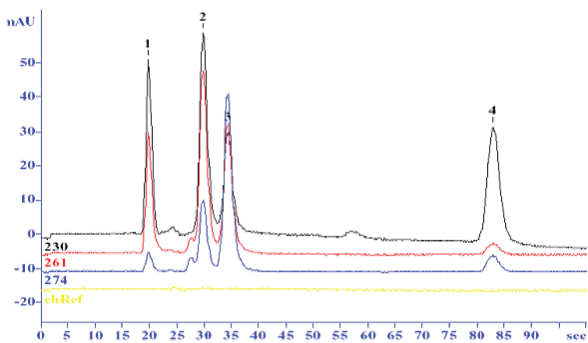
## Dimethylsiloxane with Evaporative Light Scattering Detection ProntoSIL 120-5-C18 SH

Part number 2546F180PS050  
 Dimension 250 x 4.6 mm  
 Eluent A: ACN/Acetone 70/30 (v/v)  
 B: Ethyl acetate  
 5-70% B in 50 min, 70% B hold  
 for 15 min  
 Flow 0.9 ml/min  
 Detection Evap. Light Scattering  
 detector (DDL31)  
 PMT: 500, Temp: 40 °C  
 Pressure (air): 1.5 bar  
 Temperature 25 °C  
 Sample Silicone-Standard  
 (DMS-T11)  
 Injection: 10 µl



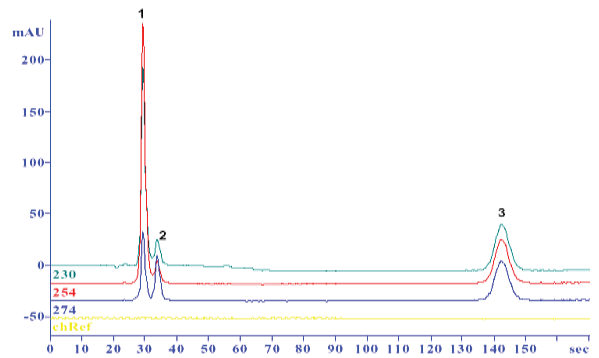
## Fast Analysis of a pharmaceutical Teststan- dard with Multiwavelength Detection ProntoSIL-120-5-C18 AQ

Part number 0446F184PS050  
 Dimension 33 x 4.6 mm  
 Eluent A: H<sub>2</sub>O + 0.1% TFA; B:ACN  
 Gradient 20-30% B in 60 sec  
 Flow 1.2 ml/min  
 Detection Multiwavelength Detector (DAD-3L)  
 Wavelength 230, 261 and 274 nm; Ref. at 350nm  
 Temperature 25 °C  
 Injection 1 µl  
 Sample 1 Ascorbic acid  
 2 Paracetamol  
 3 Caffeine  
 4 Acetylsalicylic acid



## Fast Analysis of a Cold Medicine II with Multiwavelength Detection ProntoSIL-120-5-C18 AQ

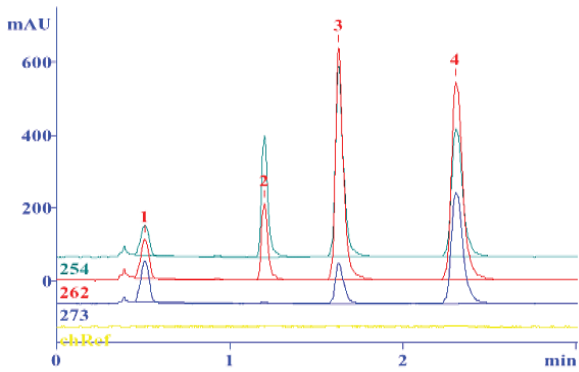
Part number 0446F184PS050  
 Dimension 33 x 4.6 mm  
 Eluent A: H<sub>2</sub>O + 0.1% TFA; B:ACN  
 Gradient 20-30% B in 30 sec  
 Flow 1.2 ml/min  
 Detection Multiwavelength Detector (DAD-3L)  
 Wavelength 230, 254 and 274 nm; Ref. at 350nm  
 Temperature 25 °C  
 Injection 1 µl  
 Sample 1 Paracetamol  
 3 Caffeine  
 4 Propylphenanzone





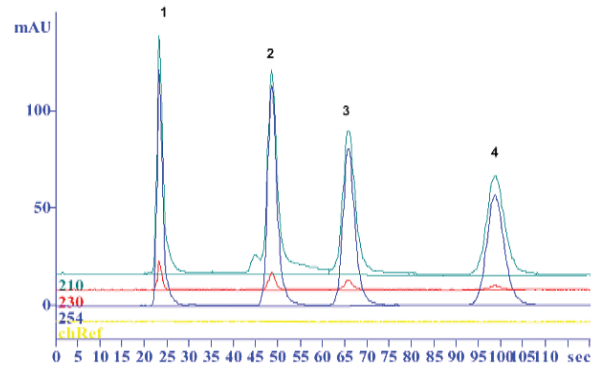
### Standardtestmixture with Multiwavelength Detection ProntoSIL 120-3-C18 SH

Part number	0604F180PS030	Temperature	25 °C
Dimension	53 x 4.0 mm	Injection	1 µl
Eluent	H2O/ ACN; 40/60	Sample	1 Acetone
Flow	1.0 ml/min		2 Benzene
Detection	Multiwavelength Detector (DAD-3L)		3 Toluene
			4 m-Xylene
Wavelengthe	254, 262 and 273 nm		
	Ref. at 350nm		



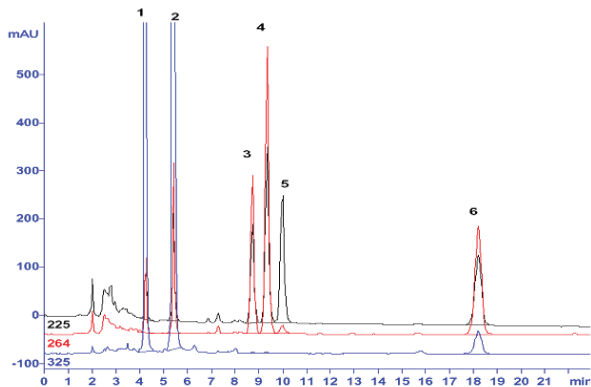
### Fast Analysis of Parabens II with Multiwavelength Detection ProntoSIL 120-5-C18 AQ

Part number	0446F184PS050	Wavelengthe	210, 230 and 254 nm
Dimension	33 x 4.6 mm		Ref. at 350 nm
Eluent	A: H2O B: ACN	Temperature	25 °C
Gradient	20-30% B in 30 sec	Injection	2 µl
Flow	1.0 ml/min	Sample	1 Uracil
Detection	Multiwavelength Detector (DAD-3L)		2 Methylparabene
			3 Ethylparabene
			4 Propylparabene



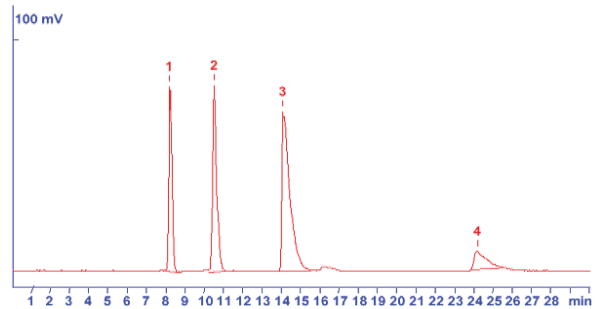
### Fat soluble Vitamins II with Multiwavelength Detection ProntoSIL 120-3-C18 SH

Part number	2503F180PS030	Injection	5 µl
Dimension	250 x 3.0 mm	Sample	1: Vitamin A
Eluent	MeOH		2: Vitamin A acetate
Flow	1 ml/min		3: Vitamin D <sub>2</sub>
Detection	Multiwavelength Detector (DAD-3L)		4: Vitamin D <sub>3</sub>
			5: Vitamin E
			6: Vitamin K <sub>1</sub>
Wavelengthe	225, 264, 325 nm		
Temperature	25 °C		



### Aromatic Hydrocarbons according to prEN 12916 ProntoSIL ENVIRO PTL

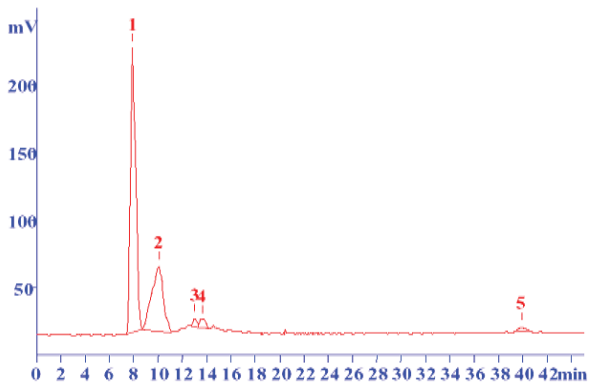
Part number	2546C450PS050	Sample	Calibration Standard B - EUROPEAN STANDARD prEN 12916 (June 1997)
Dimension	250 x 4.6 mm		1: Cyclohexane (2.0g/100ml)
Eluent	Heptane		2: o-Xylene (1.0g/100ml)
Flow	1.0 ml/min		3: 1-Methylnaphthalene (1.0g/100ml)
Backflush on	16 min		4: Phenanthrene (0.2g/100ml)
Detection	RI		7. 22 between Cyclohexane and o- Xylene
Temperature	25 °C		(the resolution between Cyclohexane and o-Xylene should not be less than 5.0)
Injection	10 µl		





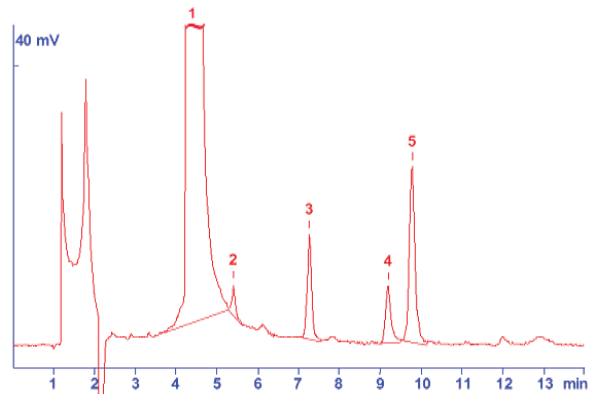
## Diesel ProntoSIL ENVIRO PTL

Part number	2546C450PS050	Sample	1: Cyclohexane
Dimension	250 x 4.6 mm		2: Monocycl. Aromatics
Eluent	Heptane		3: Dicycl. Aromatics
Flow	1.0 ml/min		4: Dicycl. Aromatics
backflush on	20 min		5: Polycycl. Aromatics
Detection	RI		
Temperature	25 °C		
Injection	10 µl		



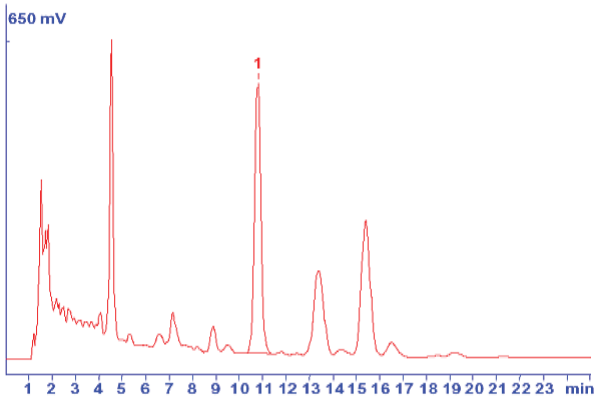
## Acetaldehyde in Mineralwater ProntoSIL 120-3-C18 ACE- EPS

Part number	1504F18APS030	Sample	Mineralwater after Derivatisation with DNPH
Dimension	150 x 4.0 mm		1 DNPH
Eluent	H <sub>2</sub> O/ ACN 50/50 (v/v)		5 Acetaldehyde. 6ppb
Flow	1.0 ml/min		
Detection	UV 360 nm		
Temperature	25 °C		
Injection	500 µl		



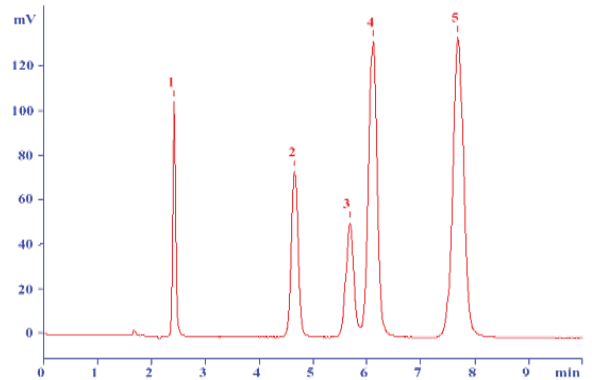
## Ergosterol in Grass ProntoSIL 120-5-C18 H

Part number	1204F185PS050	Sample	1 Ergosterol
Dimension	125 x 4.0 mm		Extracted according to VDLUFA (1993)
Eluent	H <sub>2</sub> O/MeOH 2/98 (v/v)		
Flow	0.75 ml/min		
Detection	UV 282 nm		
Temperature	25 °C		
Injection	20 µl		



## Sulfa Drugs ProntoSIL 120-5-C18 ACE - EPS

Part number	1546F18APS050	Injection	3 µl
Dimension	150 x 4.6 mm	Sample	1 Sulfanilamide
Eluent	MeOH/H <sub>2</sub> O/Acetic Acid 20/79/1 (v/v/v)		2 Sulfadiazine
Flow	1 ml/min		3 Sulfathiazole
Detection	UV 254 nm		4 Sulfamerazine
Temperature	25 °C		5 Sulfamethazine





# ProntoSIL HPLC Column Application - 4

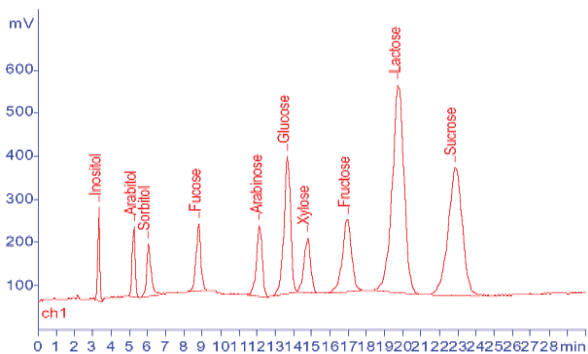
Page

- Sugaralcohols, Mono- and Disaccharides with BioQuant Carbohydrate Inositol
  - Alcohol, Sugaralcohols, Mono- and Disaccharides with BioQuant Carbohydrate
- .....40



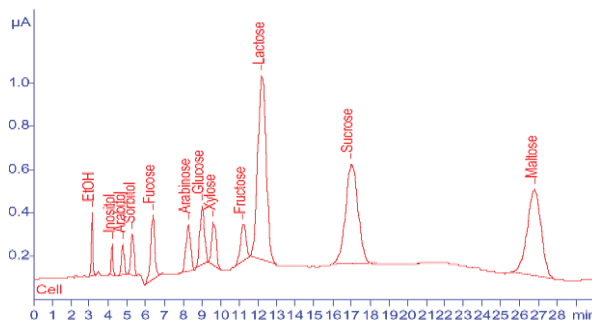
## Sugaralcohols, Mono- and Disaccharides with BioQuant Carbohydrate

Column	Sugar1	Sample	1 Inositol
Dimension	250 x 4.6 mm PEEK		2 Arabitol
Eluent	100mM NaOH		3 Sorbitol
Flow	0.9 ml/min		4 Fructose
Detection	BioQuant Carbohydrate		5 Arabinose
Temperature	28 °C		6 Glucose
Injection	20 µl		7 Xylose
			8 Fructose
			9 Lactose
			10 Sucrose (1-50 mg/l)



## Alcohol, Sugaralcohols, Mono- and Disaccharides with BioQuant Carbohydrate

Column	Sugar1	Sample	1 Ethanol
Dimension	250 x 4.6 mm PEEK		2 Inositol
Eluent	A: 96mM NaOH B: 96mM NaOH, 250 mM NaOAc		3 Arabitol
Gradient	5%-10%B 0-15min; 10-25%B 15-20 min		4 Sorbitol
Flow	1 ml/min		5 Fructose
Detection	BioQuant Carbohydrate		6 Arabinose
Temperature	28 °C		7 Glucose
Injection	20 µl		8 Xylose
			9 Fructose
			10 Lactose
			11 Sucrose
			12 Maltose (0.5-25 mg/l)



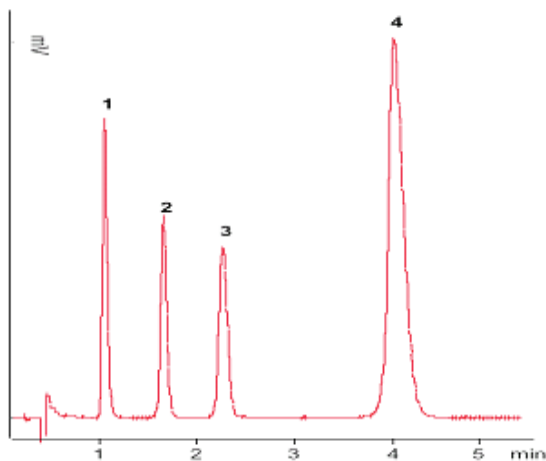
# ProntoSIL HPLC Column Application - 5

- High Speed Separation of Catecholamines



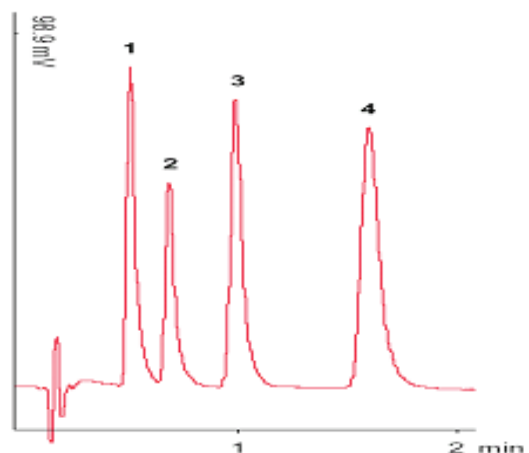
## High Speed Separation of Catecholamines ProntoSIL 120-3-C18 AQ

Part number	0404F184PS030	Sample	1: Norepinephrine
Dimension	33 x 4 mm		2: Epinephrine
Eluent	CAT-A-Phase		3: Dihydroxybenzylamine
Flow	1.0 ml/min		4: Dopamine
Detection	Coulometric		
Temperature	30 °C		
Injection	3 µl		



## High Speed Separation of Catecholamines ProntoSIL 120-3-C18 AQ

Part number	0203F184PS030	Sample	1: Norepinephrine
Dimension	25 x 3 mm		2: Epinephrine
Eluent	ADAM-B-Phase		3: Dihydroxybenzylamine
Flow	0.95 ml/min		4: Dopamine
Detection	Coulometric		
Temperature	28 °C		
Injection	1 µl		





BISCHOFF  
CHROMATOGRAPHY

# ProntoSIL HPLC Column Application - 6

Page

- Sugaralcohols, Mono-and Disaccharides with BioQuant Carbohydrate . . 44
- Sugars in Applejuice with BioQuant Carbohydrate
- Sugars in Applejuice
- Sugars in Orangejuice (A) and Diet Orangejuice (B)
- Sugars in Shampoo ..... 45
- Maltooligosaccacharides from Cornsyrup
- Monosaccharides of Glycoproteins
- Plasma Catecholamines
- Catecholamine - 6 - Standard ..... 46
- Catecholamine - 8 - Standard

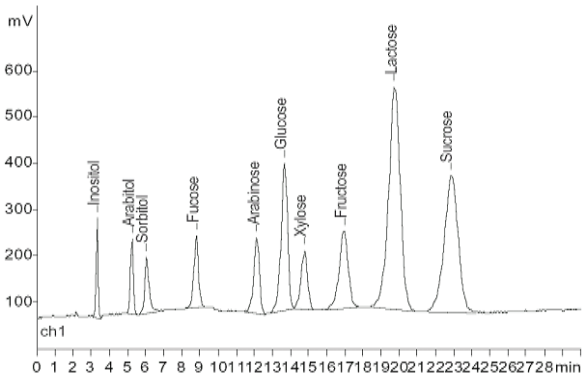
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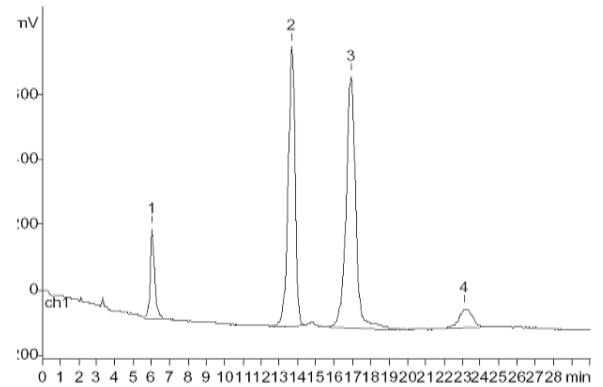
## Sugaralcohols, Mono- and Disaccharides with BioQuant Carbohydrate

Column	PAD Column	Sample	1 Inositol
Dimension	250 x 4.6 mm PEEK		2 Arabitol
Eluent	100mM NaOH		3 Sorbitol
Flow	0.9 ml/min		4 Fucose
Detection	BioQuant Carbohydrate		5 Arabinose
Temperature	28 °C		6 Glucose
Injection	20 µl		7 Xylose
			8 Fructose
			9 Lactose
			10 Sucrose (1-50mg/l)



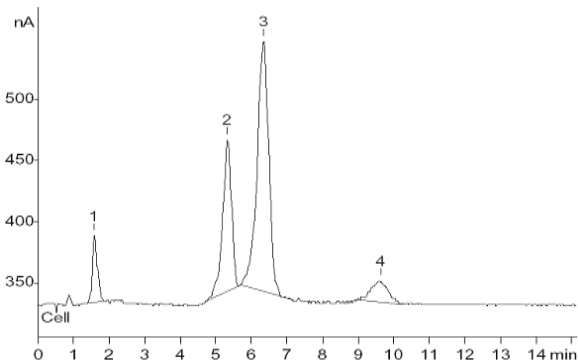
## Sugars in Applejuice with BioQuant Carbohydrate

Column	PAD Column	Sample	1 Sorbitol
Dimension	250 x 4.6 mm PEEK		2 Glucose
Eluent	100 mM NaOH		3 Fructose
Flow	0.9 ml/min		4 Sucrose
Detection	BioQuant carbohydrate		
Temperature	28 °C		
Injection	20 µl (diluted 1: 1000)		



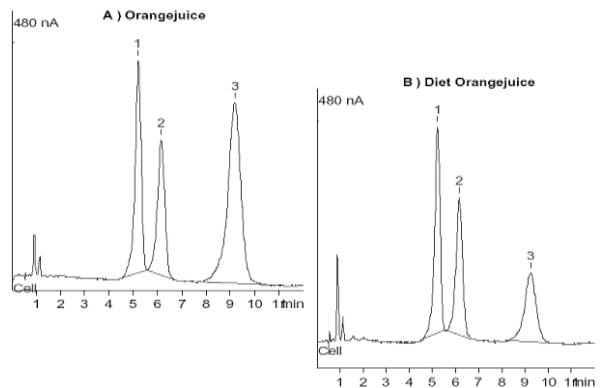
## Sugars in Applejuice

Column	hamilton RCX-30	Sample	1 Sorbitol
Dimension	150 x 4.6 mm PEEK		2 Glucose
Eluent	60 mM NaOH		3 Fructose
Flow	2.00 ml/min		4 Sucrose
Detection	BioQuant Carbohydrate		
Temperature	32 °C		
Injection	1 µl (diluted 1:1000)		



## Sugars in Oragnejuice (A) and Diet Orangejuice (B)

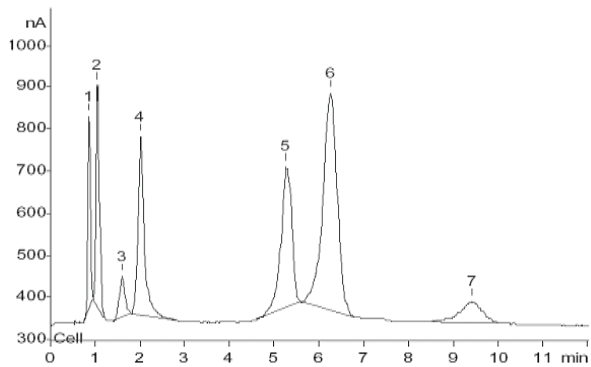
Column	Hamilton RCX-30	Injection	5 µl (diluted 1: 1000)
Dimension	150 x 4.6 mm PEEK	Sample	1 Glucose
Eluent	60 mM NaOH		2 Fructose
Flow	2.00 ml/min		3 Sucrose
Detection	BioQuant carbohydrate		
Temperature	32 °C		





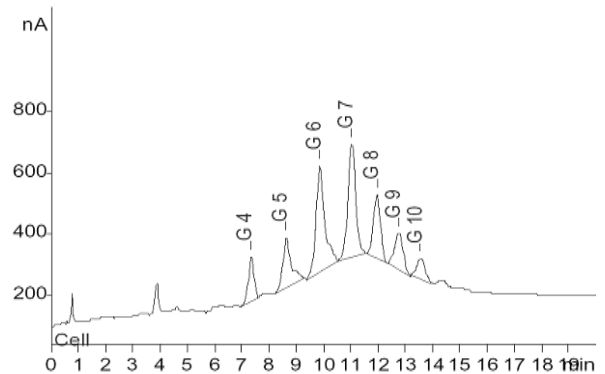
## Sugars In Shampoo

Column	Hamilton RCX-30	Injection	1 µl
Dimension	150 x 4.6 mm PEEK	Sample	3 Sorbitol
Eluent	60 mM NaOH		5 Glucose
Flow	2.00 ml/min		6 Fructose
Detection	BioQuant Carbohydrate		7 Sucrose
Temperature	32 °C		



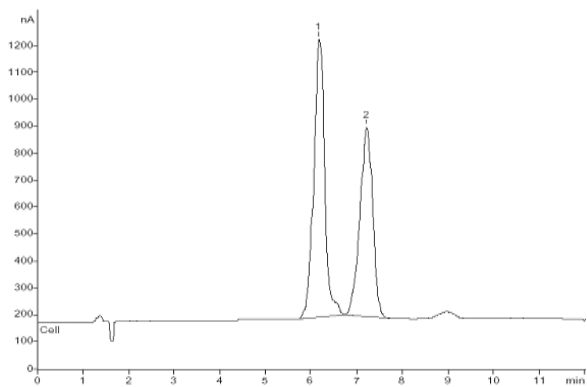
## Maltooligosaccharides from Cornsyrup

Column	Hamilton RCX	Flow	2.00 ml/min
Dimension	150 x 4.6 mm PEEK	Detection	BioQuant carbohydrate
Eluent	Eluent A: 60 mM NaOH Eluent B: 60 mM NaOH: 500 mM Na-acetat	Temperature	32 °C
Gradient	10-60% B in 0-20 min	Injection	5 µl
		Sample	G4- G10



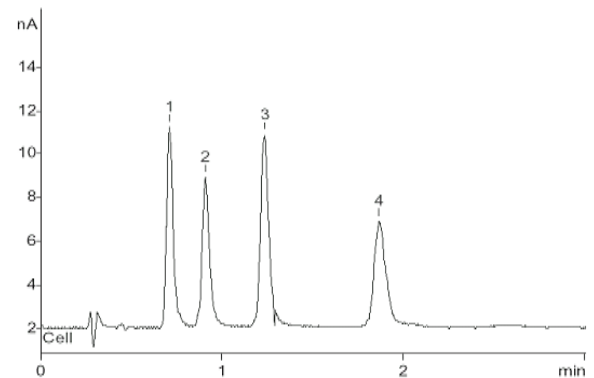
## Monosaccharides of Glycoproteins

Column	Dionex CarboPAC PA1	Injection	5 µl
Dimension	250 x 4.0 mm PEEK	Sample	1 Galactosamine
Eluent	20 mM NaOH		2 Glucosamine
Flow	1.00 ml/min		
Detection	BioQuant Carbohydrate		
Temperature	28 °C		



## Plasma Catecholamines

Column	ProntoSIL-120-3-C18 AQ	Injection	5 µl
Dimension	33 x 3.0 mm	Sample	1 Noradrenalin
Eluent	Pronto- Cat Phase		2 Adrenalin
Flow	0.5 ml/min		3 DHBA
Detection	BioQuant carbohydrate		4 Dopamin
Temperature	30 °C		

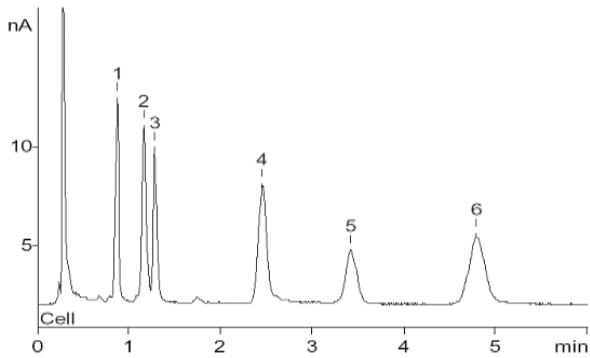






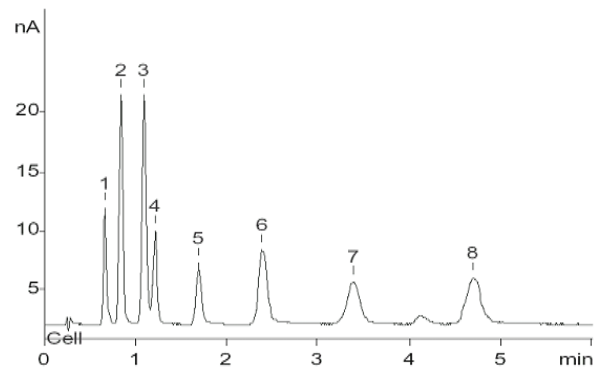
## Catecholamine -6 -Standard

Column	ProntoSIL-120-3-C18 AQ	Sample	1 Arenalin
Dimension	33 x 3.0 mm		2 DHBA
Eluent	Pronto- Cat Phase		3 DOPAC
Flow	0.5 ml/min		4 5-HIAA
Detection	BioQuant Carbohydrate		5 HVA
Temperature	30 °C		6 Serotonin
Injection	5 µl		



## Catecholamine -8 -Standard

Column	ProntoSIL-120-3-C18 AQ	Injection	5 µl
Dimension	33 x 3.0 mm	Sample	1 Noradrenalin
Eluent	Pronto- Cat Phase		2 Adrenalin
Flow	0.5 ml/min		3 DHBA
Detection	BioQuant CAT Amine, +500 mV		4 DOPAC
Temperature	30 °C		5 Dopamin
			6 5-HIAA
			7 HVA
			8 Serotonin



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# HPLC Columns

## 고정상의 종류

Reverse Phase Material	Normal Phase Material
<p><b>1. C1 (=TMS) : Si-CH3</b> 역상(reverse phase=RP)의 성질을 지녔으며, alkyl group을 가진 bonded phase중에서 least retentive합니다. 극성인 물질이나 functional group을 많이 가진 물질의 분석에 적합합니다.</p> <p><b>2. C4 (butyl) : Si-C4H9</b> 역상의 성질을 지녔으며, HIC나 ion-pairing chromatography에 유용합니다. C8이나 C18의 고정상보다는 비극성 물질에 대해 less retentive하며, 300Å의 pore size를 가진 silica에서 단백질이나 hydrophobic peptide를 분석할 때 유용합니다.</p> <p><b>3. C8 (octyl) : Si-C8H17</b> 역상의 성질을 지녔으며, C18과 비슷한 선택성을 지니고 있습니다. 그러나 C18보다는 less retentive하다. 넓은 응용분야를 가지고 있으며, 300Å의 pore size를 가진 silica에서 peptide mapping, small hydrophilic 단백질을 분석할 때 유용합니다.</p> <p><b>4. C18(octadecyl=ODS) : Si-C18H37</b> 전통적인 역상의 고정상으로 흔히 사용되어 왔으며, 거의 모든 유기화합물에 대해 응용범위를 가집니다. 또한 ion-pairing chromatography에 유용하며, 300Å의 pore size를 가진 silica에서 hydrophilic peptide를 분석할 때 이상적입니다.</p> <p><b>5. Phenyl : Si-CH2CH2CH2C6H5</b> 역상의 고정상으로 독특한 선택성을 가지고 있습니다. 특히 aromatic 화합물을 분석할 때 유용합니다.</p>	<p><b>1. CN (cyano) : Si-CH2CH2CH2CN</b> 역상 혹은 순상(normal phase=NP)으로 응용가능하며, 약간 극성을 띕니다. 극성 물질에 대해 고유한 선택성을 가지며, 재평형이 빠르고, gradient 분리에 적합합니다. 약리물질의 분리에 응용이 많은 것으로 알려져 있습니다.</p> <p><b>2. NH2 (amino) : Si-CH2CH2CH2NH2</b> 역상 혹은 순상으로 응용 가능하며, 약한 음이온 교환수지 역할도 할 수 있습니다. 역상으로 사용될 경우 carbohydrate 분석에 특히 유용하며, buffer와 함께 사용될 경우 음이온 이나 유기산 분석에 사용될 수 있습니다.</p> <p><b>3. SAX : Si-CH2CH2CH2N+(CH3)3</b> 음이온 교환수지 역할을 하며, 유기산이나 nucleotide, nucleoside 분석에 유용합니다.</p> <p><b>4. SCX : Si-CH2CH2CH2SO3H</b> 양이온 교환수지 역할을 하며, 유기염기물을 분석할 경우 사용됩니다.</p> <p><b>5. Silica : Si-OH</b> 전통적인 순상으로 사용되며, 비이온이면서 극성인 유기화합물의 분리에 적합합니다.</p>

## Column의 물리적 성질

### 1. Column Dimensions and length

- 컬럼의 packing되는 내경과 길이를 말합니다.
- Short column - 30-50mm 길이의 컬럼을 말하며 짧은 run times과 낮은 Back pressure를 제공합니다.
  - Long column - 250 - 300mm길이의 컬럼을 말하며 높은 resolution과 오랜 run time을 갑니다.
  - Narrow-bore column - 내경이 2.1mm 이하의 컬럼을 말하며 높은 검출 감도를 제공합니다.
  - Wide bore column - 10-22mm 내경을 가진 컬럼을 말하며 많은 양의 시료를 loading할 수 있습니다.

### 2. Particle Shape

- Particle의 모양은 구형과 Irregular형 2가지입니다.
- 구형 particle - 구형 particle은 점성의 이동상(ex. 50:50(v/v) methanol-water)을 사용할 때 column의 back pressure를 줄이고 오랜 column 수명을 제공합니다.
  - Irregular particle - 높은 표면적과 carbon loads를 갖으며 보통 높은 resolution이 필요할 때 사용합니다. (분취용에 유리함)

### 3. Particle Size.

- 대부분의 particle size는 1.5 - 20 를 갖습니다. particle이 작을수록 높은 efficiency와 복잡한 시료의 분석이 가능하지만 대부분은 5 or 10 의 packing 을 사용합니다. Particle이 작으면 그만큼 back pressure도 많이 걸리기 때문입니다.

### 4. Surface Area.

- 표면적은 particle 외각 전체 면적과 pore 내부의 전체 면적을 더한 것을 gram당 m2로 표시한 것입니다. 따라서 높은 표면적은 복잡한 시료 분석시에 더 높은 retention과 capacity 그리고 resolution을 제공합니다.

### 5. Pore Size

- Pore size란 Particle의 pore와 cavities의 평균 size를 말합니다. 대부분 60 - 10,000 사이입니다. 큰 pore는 큰 molecule이 particle 표면에 오래 머무를 수 있도록 해 줍니다. M.W가 2,000이하일 때는 150 이하의 pore size를 선택하고 2,000보다 큰 MW를 가진 시료의 경우에는 300 또는 그 이상의 pores size를 선택하여 줍니다

### 6. Bonding Type.

- Bonding type이란 Base silica에 고정상이 어떤 mode로 붙어있는지를 말합니다.
- Monomeric - Monomeric phase는 base silica에 단일 point로 고정상이 결합되어있는 것을 말합니다. Monomeric bonding은 빠른 평형과 높은 컬럼 효율을 제공합니다.
  - Polymeric - Polymeric Phase는 base silica에 multi point로 고정상이 결합되어있는 것을 말합니다. 이는 높은 aqueous 이동상을 사용 시에 컬럼의 안전성을 증가시킵니다. 또한 시료의 높은 loading 양도 가능합니다.

### 7. Carbon Load

- Carbon Load란 Base material에 붙어있는 고정상의 양을 말합니다. 보통 carbon의percentage로 표시합니다. 높은 carbon load는 Hydrophobic한 시료에서 더 큰 resolution과 오랜 머무름성을 제공합니다. 낮은 carbon load는 다른 선택성을 가진 시료분석 시에 빠른 run time을 가질 수 있게 합니다.

### 8. EndCapping.

- End Capping이란 처음 bonding 한 후에 표면에 남은 silanol기들을 짧은 Hydrocarbon chain으로 capping하는 것을 말합니다.



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# Ordering Informations

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Internet: [www.futechs.com](http://www.futechs.com)

## ProntoSIL C18(C8) ace-EPS Columns(60A, 120A, 200A, 300A)

PART NUMBER	DESCRIPTION
0146F18APS030	ProntoSIL 120-3-C18 ace-EPS Guard 3um 14 x 4.6mm
0104F18APS030	ProntoSIL 120-3-C18 ace-EPS Guard 3um 14 x 4.0mm
1046F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 100 x 4.6mm
1004F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 100 x 4.0mm
1003F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 100 x 3.0mm
1002F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 100 x 2.0mm
1246F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 125 x 4.6mm
1204F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 125 x 4.0mm
1203F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 125 x 3.0mm
1202F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 125 x 2.0mm
1546F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 150 x 4.6mm
1504F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 150 x 4.0mm
1503F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 150 x 3.0mm
1502F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 150 x 2.0mm
2046F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 200 x 4.6mm
2004F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 200 x 4.0mm
2003F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 200 x 3.0mm
2002F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 200 x 2.0mm
2546F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 250 x 4.6mm
2504F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 250 x 4.0mm
2503F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 250 x 3.0mm
2502F18APS030	ProntoSIL 120-3-C18 ace-EPS 3um 250 x 2.0mm
10P4F18APS030	ProntoSIL 120-3-C18 ace-EPS PEEK column 3um 100 x 4.0mm
12P4F18APS030	ProntoSIL 120-3-C18 ace-EPS PEEK column 3um 125 x 4.0mm
15P4F18APS030	ProntoSIL 120-3-C18 ace-EPS PEEK column 3um 150 x 4.0mm
20P4F18APS030	ProntoSIL 120-3-C18 ace-EPS PEEK column 3um 200 x 4.0mm
25P4F18APS030	ProntoSIL 120-3-C18 ace-EPS PEEK column 3um 250 x 4.0mm
0146F18APS050	ProntoSIL 120-5-C18 ace-EPS Guard 5um 14 x 4.6mm
0104F18APS050	ProntoSIL 120-5-C18 ace-EPS Guard 5um 14 x 4.0mm
1046F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 100 x 4.6mm
1004F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 100 x 4.0mm
1003F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 100 x 3.0mm
1002F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 100 x 2.0mm
1246F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 125 x 4.6mm
1204F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 125 x 4.0mm
1203F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 125 x 3.0mm
1202F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 125 x 2.0mm

PART NUMBER	DESCRIPTION
1203F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 125 x 3.0mm
1202F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 125 x 2.0mm
1546F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 150 x 4.6mm
1504F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 150 x 4.0mm
1503F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 150 x 3.0mm
1502F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 150 x 2.0mm
2046F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 200 x 4.6mm
2004F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 200 x 4.0mm
2003F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 200 x 3.0mm
2002F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 200 x 2.0mm
2546F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 250 x 4.6mm
2504F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 250 x 4.0mm
2503F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 250 x 3.0mm
2502F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 250 x 2.0mm
3046F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 300 x 4.6mm
3004F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 300 x 4.0mm
3003F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 300 x 3.0mm
3002F18APS050	ProntoSIL 120-5-C18 ace-EPS 5um 300 x 2.0mm
10P4F18APS050	ProntoSIL 120-5-C18 ace-EPS PEEK column 5um 100 x 4.0mm
12P4F18APS050	ProntoSIL 120-5-C18 ace-EPS PEEK column 5um 125 x 4.0mm
15P4F18APS050	ProntoSIL 120-5-C18 ace-EPS PEEK column 5um 150 x 4.0mm
20P4F18APS050	ProntoSIL 120-5-C18 ace-EPS PEEK column 5um 200 x 4.0mm
25P4F18APS050	ProntoSIL 120-5-C18 ace-EPS PEEK column 5um 250 x 4.0mm
30P4F18APS050	ProntoSIL 120-5-C18 ace-EPS PEEK column 5um 300 x 4.0mm
0146F18APS100	ProntoSIL 120-10-C18 ace-EPS Guard 10um 14 x 4.6mm
0104F18APS100	ProntoSIL 120-10-C18 ace-EPS Guard 10um 14 x 4.0mm
1046F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 100 x 4.6mm
1004F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 100 x 4.0mm
1003F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 100 x 3.0mm
1002F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 100 x 2.0mm
1246F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 125 x 4.6mm
1204F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 125 x 4.0mm
1203F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 125 x 3.0mm

ProntoSIL C18(C8) ace-EPS Columns

**ProntoSIL C18(C8) ace-EPS Columns**

PART NUMBER	DESCRIPTION
1202F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 125 x 2.0mm
1546F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 150 x 4.6mm
1504F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 150 x 4.0mm
1503F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 150 x 3.0mm
1502F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 150 x 2.0mm
2046F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 200 x 4.6mm
2004F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 200 x 4.0mm
2003F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 200 x 3.0mm
2002F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 200 x 2.0mm
2546F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 250 x 4.6mm
2504F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 250 x 4.0mm
2503F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 250 x 3.0mm
2502F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 250 x 2.0mm
3046F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 300 x 4.6mm
3004F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 300 x 4.0mm
3003F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 300 x 3.0mm
3002F18APS100	ProntoSIL 120-10-C18 ace-EPS 10um 300 x 2.0mm
10P4F18APS100	ProntoSIL 120-10-C18 ace-EPS PEEK column 10um 100 x 4.0mm
12P4F18APS100	ProntoSIL 120-10-C18 ace-EPS PEEK column 10um 125 x 4.0mm
15P4F18APS100	ProntoSIL 120-10-C18 ace-EPS PEEK column 10um 150 x 4.0mm
20P4F18APS100	ProntoSIL 120-10-C18 ace-EPS PEEK column 10um 200 x 4.0mm
25P4F18APS100	ProntoSIL 120-10-C18 ace-EPS PEEK column 10um 250 x 4.0mm
30P4F18APS100	ProntoSIL 120-10-C18 ace-EPS PEEK column 10um 300 x 4.0mm
0146H18APS030	ProntoSIL 200-3-C18 ace-EPS Guard 3um 14 x 4.6mm
0104H18APS030	ProntoSIL 200-3-C18 ace-EPS Guard 3um 14 x 4.0mm
1046H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 100 x 4.6mm
1004H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 100 x 4.0mm
1003H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 100 x 3.0mm
1002H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 100 x 2.0mm
1246H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 125 x 4.6mm
1204H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 125 x 4.0mm
1203H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 125 x 3.0mm
1202H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 125 x 2.0mm
1546H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 150 x 4.6mm
1504H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 150 x 4.0mm
1503H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 150 x 3.0mm
1502H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 150 x 2.0mm
2046H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 200 x 4.6mm
2004H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 200 x 4.0mm
2003H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 200 x 3.0mm
2002H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 200 x 2.0mm
2546H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 250 x 4.6mm

PART NUMBER	DESCRIPTION
2504H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 250 x 4.0mm
2503H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 250 x 3.0mm
2502H18APS030	ProntoSIL 200-3-C18 ace-EPS 3um 250 x 2.0mm
10P4H18APS030	ProntoSIL 200-3-C18 ace-EPS PEEK column 3um 100 x 4.0mm
12P4H18APS030	ProntoSIL 200-3-C18 ace-EPS PEEK column 3um 125 x 4.0mm
15P4H18APS030	ProntoSIL 200-3-C18 ace-EPS PEEK column 3um 150 x 4.0mm
20P4H18APS030	ProntoSIL 200-3-C18 ace-EPS PEEK column 3um 200 x 4.0mm
25P4H18APS030	ProntoSIL 200-3-C18 ace-EPS PEEK column 3um 250 x 4.0mm
0146K18APS030	ProntoSIL 300-3-C18 ace-EPS Guard 3um 14 x 4.6mm
0104K18APS030	ProntoSIL 300-3-C18 ace-EPS Guard 3um 14 x 4.0mm
1046K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 100 x 4.6mm
1004K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 100 x 4.0mm
1003K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 100 x 3.0mm
1002K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 100 x 2.0mm
1246K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 125 x 4.6mm
1204K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 125 x 4.0mm
1203K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 125 x 3.0mm
1202K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 125 x 2.0mm
1546K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 150 x 4.6mm
1504K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 150 x 4.0mm
1503K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 150 x 3.0mm
1502K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 150 x 2.0mm
2046K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 200 x 4.6mm
2004K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 200 x 4.0mm
2003K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 200 x 3.0mm
2002K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 200 x 2.0mm
2546K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 250 x 4.6mm
2504K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 250 x 4.0mm
2503K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 250 x 3.0mm
2502K18APS030	ProntoSIL 300-3-C18 ace-EPS 3um 250 x 2.0mm
10P4K18APS030	ProntoSIL 300-3-C18 ace-EPS PEEK column 3um 100 x 4.0mm
12P4K18APS030	ProntoSIL 300-3-C18 ace-EPS PEEK column 3um 125 x 4.0mm
15P4K18APS030	ProntoSIL 300-3-C18 ace-EPS PEEK column 3um 150 x 4.0mm
20P4K18APS030	ProntoSIL 300-3-C18 ace-EPS PEEK column 3um 200 x 4.0mm
25P4K18APS030	ProntoSIL 300-3-C18 ace-EPS PEEK column 3um 250 x 4.0mm
0146H18APS050	ProntoSIL 200-5-C18 ace-EPS Guard 5um 14 x 4.6mm
0104H18APS050	ProntoSIL 200-5-C18 ace-EPS Guard 5um 14 x 4.0mm
1046H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 100 x 4.6mm
1004H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 100 x 4.0mm

PART NUMBER	DESCRIPTION
1003H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 100 x 3.0mm
1002H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 100 x 2.0mm
1246H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 125 x 4.6mm
1204H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 125 x 4.0mm
1203H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 125 x 3.0mm
1202H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 125 x 2.0mm
1546H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 150 x 4.6mm
1504H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 150 x 4.0mm
1503H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 150 x 3.0mm
1502H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 150 x 2.0mm
2046H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 200 x 4.6mm
2004H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 200 x 4.0mm
2003H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 200 x 3.0mm
2002H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 200 x 2.0mm
2546H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 250 x 4.6mm
2504H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 250 x 4.0mm
2503H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 250 x 3.0mm
2502H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 250 x 2.0mm
3046H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 300 x 4.6mm
3004H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 300 x 4.0mm
3003H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 300 x 3.0mm
3002H18APS050	ProntoSIL 200-5-C18 ace-EPS 5um 300 x 2.0mm
10P4H18APS050	ProntoSIL 200-5-C18 ace-EPS PEEK column 5um 100 x 4.0mm
12P4H18APS050	ProntoSIL 200-5-C18 ace-EPS PEEK column 5um 125 x 4.0mm
15P4H18APS050	ProntoSIL 200-5-C18 ace-EPS PEEK column 5um 150 x 4.0mm
20P4H18APS050	ProntoSIL 200-5-C18 ace-EPS PEEK column 5um 200 x 4.0mm
25P4H18APS050	ProntoSIL 200-5-C18 ace-EPS PEEK column 5um 250 x 4.0mm
30P4H18APS050	ProntoSIL 200-5-C18 ace-EPS PEEK column 5um 300 x 4.0mm
0146K18APS050	ProntoSIL 300-5-C18 ace-EPS Guard 5um 14 x 4.6mm
0104K18APS050	ProntoSIL 300-5-C18 ace-EPS Guard 5um 14 x 4.0mm
1046K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 100 x 4.6mm
1004K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 100 x 4.0mm
1003K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 100 x 3.0mm
1002K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 100 x 2.0mm
1246K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 125 x 4.6mm
1204K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 125 x 4.0mm
1203K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 125 x 3.0mm
1202K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 125 x 2.0mm
1546K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 150 x 4.6mm
1504K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 150 x 4.0mm
1503K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 150 x 3.0mm
1502K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 150 x 2.0mm

PART NUMBER	DESCRIPTION
2046K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 200 x 4.6mm
2004K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 200 x 4.0mm
2003K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 200 x 3.0mm
2002K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 200 x 2.0mm
2546K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 250 x 4.6mm
2504K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 250 x 4.0mm
2503K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 250 x 3.0mm
2502K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 250 x 2.0mm
3046K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 300 x 4.6mm
3004K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 300 x 4.0mm
3003K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 300 x 3.0mm
3002K18APS050	ProntoSIL 300-5-C18 ace-EPS 5um 300 x 2.0mm
10P4K18APS050	ProntoSIL 300-5-C18 ace-EPS PEEK column 5um 100 x 4.0mm
12P4K18APS050	ProntoSIL 300-5-C18 ace-EPS PEEK column 5um 125 x 4.0mm
15P4K18APS050	ProntoSIL 300-5-C18 ace-EPS PEEK column 5um 150 x 4.0mm
20P4K18APS050	ProntoSIL 300-5-C18 ace-EPS PEEK column 5um 200 x 4.0mm
25P4K18APS050	ProntoSIL 300-5-C18 ace-EPS PEEK column 5um 250 x 4.0mm
30P4K18APS050	ProntoSIL 300-5-C18 ace-EPS PEEK column 5um 300 x 4.0mm
0146F08APS050	ProntoSIL 120-5-C8 ace-EPS Guard 5um 14 x 4.6mm
0104F08APS050	ProntoSIL 120-5-C8 ace-EPS Guard 5um 14 x 4.0mm
1046F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 100 x 4.6mm
1004F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 100 x 4.0mm
1003F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 100 x 3.0mm
1002F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 100 x 2.0mm
1246F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 125 x 4.6mm
1204F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 125 x 4.0mm
1203F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 125 x 3.0mm
1202F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 125 x 2.0mm
1546F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 150 x 4.6mm
1504F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 150 x 4.0mm
1503F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 150 x 3.0mm
1502F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 150 x 2.0mm
2046F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 200 x 4.6mm
2004F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 200 x 4.0mm
2003F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 200 x 3.0mm
2002F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 200 x 2.0mm
2546F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 250 x 4.6mm
2504F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 250 x 4.0mm
2503F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 250 x 3.0mm
2502F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 250 x 2.0mm
3046F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 300 x 4.6mm
3004F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 300 x 4.0mm

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
3003F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 300 x 3.0mm
3002F08APS050	ProntoSIL 120-5-C8 ace-EPS 5um 300 x 2.0mm
10P4F08APS050	ProntoSIL 120-5-C8 ace-EPS PEEK column 5um 100 x 4.0mm
12P4F08APS050	ProntoSIL 120-5-C8 ace-EPS PEEK column 5um 125 x 4.0mm
15P4F08APS050	ProntoSIL 120-5-C8 ace-EPS PEEK column 5um 150 x 4.0mm
20P4F08APS050	ProntoSIL 120-5-C8 ace-EPS PEEK column 5um 200 x 4.0mm
25P4F08APS050	ProntoSIL 120-5-C8 ace-EPS PEEK column 5um 250 x 4.0mm
30P4F08APS050	ProntoSIL 120-5-C8 ace-EPS PEEK column 5um 300 x 4.0mm

Visit [www.futechs.com](http://www.futechs.com) for details on complete HPLC systems, HPLC columns

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# ProntoSIL C18 H Columns(60A, 120A, 200A, 300A)

PART NUMBER	DESCRIPTION
0146C185PS030	ProntoSIL 60-3-C18H Guard 3um 14 x 4.6mm
0104C185PS030	ProntoSIL 60-3-C18H Guard 3um 14 x 4.0mm
1046C185PS030	ProntoSIL 60-3-C18H 3um 100 x 4.6mm
1004C185PS030	ProntoSIL 60-3-C18H 3um 100 x 4.0mm
1003C185PS030	ProntoSIL 60-3-C18H 3um 100 x 3.0mm
1002C185PS030	ProntoSIL 60-3-C18H 3um 100 x 2.0mm
1246C185PS030	ProntoSIL 60-3-C18H 3um 125 x 4.6mm
1204C185PS030	ProntoSIL 60-3-C18H 3um 125 x 4.0mm
1203C185PS030	ProntoSIL 60-3-C18H 3um 125 x 3.0mm
1202C185PS030	ProntoSIL 60-3-C18H 3um 125 x 2.0mm
1546C185PS030	ProntoSIL 60-3-C18H 3um 150 x 4.6mm
1504C185PS030	ProntoSIL 60-3-C18H 3um 150 x 4.0mm
1503C185PS030	ProntoSIL 60-3-C18H 3um 150 x 3.0mm
1502C185PS030	ProntoSIL 60-3-C18H 3um 150 x 2.0mm
2046C185PS030	ProntoSIL 60-3-C18H 3um 200 x 4.6mm
2004C185PS030	ProntoSIL 60-3-C18H 3um 200 x 4.0mm
2003C185PS030	ProntoSIL 60-3-C18H 3um 200 x 3.0mm
2002C185PS030	ProntoSIL 60-3-C18H 3um 200 x 2.0mm
2546C185PS030	ProntoSIL 60-3-C18H 3um 250 x 4.6mm
2504C185PS030	ProntoSIL 60-3-C18H 3um 250 x 4.0mm
2503C185PS030	ProntoSIL 60-3-C18H 3um 250 x 3.0mm
2502C185PS030	ProntoSIL 60-3-C18H 3um 250 x 2.0mm
10P4C185PS030	ProntoSIL 60-3-C18H PEEK column 3um 100 x 4.0mm
12P4C185PS030	ProntoSIL 60-3-C18H PEEK column 3um 125 x 4.0mm
15P4C185PS030	ProntoSIL 60-3-C18H PEEK column 3um 150 x 4.0mm
20P4C185PS030	ProntoSIL 60-3-C18H PEEK column 3um 200 x 4.0mm
25P4C185PS030	ProntoSIL 60-3-C18H PEEK column 3um 250 x 4.0mm
0146C185PS050	ProntoSIL 60-5-C18H Guard 5um 14 x 4.6mm
0104C185PS050	ProntoSIL 60-5-C18H Guard 5um 14 x 4.0mm
1046C185PS050	ProntoSIL 60-5-C18H 5um 100 x 4.6mm
1004C185PS050	ProntoSIL 60-5-C18H 5um 100 x 4.0mm
1003C185PS050	ProntoSIL 60-5-C18H 5um 100 x 3.0mm
1002C185PS050	ProntoSIL 60-5-C18H 5um 100 x 2.0mm
1246C185PS050	ProntoSIL 60-5-C18H 5um 125 x 4.6mm
1204C185PS050	ProntoSIL 60-5-C18H 5um 125 x 4.0mm
1203C185PS050	ProntoSIL 60-5-C18H 5um 125 x 3.0mm
1202C185PS050	ProntoSIL 60-5-C18H 5um 125 x 2.0mm
1546C185PS050	ProntoSIL 60-5-C18H 5um 150 x 4.6mm
1504C185PS050	ProntoSIL 60-5-C18H 5um 150 x 4.0mm
1503C185PS050	ProntoSIL 60-5-C18H 5um 150 x 3.0mm
1502C185PS050	ProntoSIL 60-5-C18H 5um 150 x 2.0mm

PART NUMBER	DESCRIPTION
2046C185PS050	ProntoSIL 60-5-C18H 5um 200 x 4.6mm
2004C185PS050	ProntoSIL 60-5-C18H 5um 200 x 4.0mm
2003C185PS050	ProntoSIL 60-5-C18H 5um 200 x 3.0mm
2002C185PS050	ProntoSIL 60-5-C18H 5um 200 x 2.0mm
2546C185PS050	ProntoSIL 60-5-C18H 5um 250 x 4.6mm
2504C185PS050	ProntoSIL 60-5-C18H 5um 250 x 4.0mm
2503C185PS050	ProntoSIL 60-5-C18H 5um 250 x 3.0mm
2502C185PS050	ProntoSIL 60-5-C18H 5um 250 x 2.0mm
3046C185PS050	ProntoSIL 60-5-C18H 5um 300 x 4.6mm
3004C185PS050	ProntoSIL 60-5-C18H 5um 300 x 4.0mm
3003C185PS050	ProntoSIL 60-5-C18H 5um 300 x 3.0mm
3002C185PS050	ProntoSIL 60-5-C18H 5um 300 x 2.0mm
10P4C185PS050	ProntoSIL 60-5-C18H PEEK column 5um 100 x 4.0mm
12P4C185PS050	ProntoSIL 60-5-C18H PEEK column 5um 125 x 4.0mm
15P4C185PS050	ProntoSIL 60-5-C18H PEEK column 5um 150 x 4.0mm
20P4C185PS050	ProntoSIL 60-5-C18H PEEK column 5um 200 x 4.0mm
25P4C185PS050	ProntoSIL 60-5-C18H PEEK column 5um 250 x 4.0mm
30P4C185PS050	ProntoSIL 60-5-C18H PEEK column 5um 300 x 4.0mm
0146F185PS030	ProntoSIL 120-3-C18H Guard 3um 14 x 4.6mm
0104F185PS030	ProntoSIL 120-3-C18H Guard 3um 14 x 4.0mm
1046F185PS030	ProntoSIL 120-3-C18H 3um 100 x 4.6mm
1004F185PS030	ProntoSIL 120-3-C18H 3um 100 x 4.0mm
1003F185PS030	ProntoSIL 120-3-C18H 3um 100 x 3.0mm
1002F185PS030	ProntoSIL 120-3-C18H 3um 100 x 2.0mm
1246F185PS030	ProntoSIL 120-3-C18H 3um 125 x 4.6mm
1204F185PS030	ProntoSIL 120-3-C18H 3um 125 x 4.0mm
1203F185PS030	ProntoSIL 120-3-C18H 3um 125 x 3.0mm
1202F185PS030	ProntoSIL 120-3-C18H 3um 125 x 2.0mm
1546F185PS030	ProntoSIL 120-3-C18H 3um 150 x 4.6mm
1504F185PS030	ProntoSIL 120-3-C18H 3um 150 x 4.0mm
1503F185PS030	ProntoSIL 120-3-C18H 3um 150 x 3.0mm
1502F185PS030	ProntoSIL 120-3-C18H 3um 150 x 2.0mm
2046F185PS030	ProntoSIL 120-3-C18H 3um 200 x 4.6mm
2004F185PS030	ProntoSIL 120-3-C18H 3um 200 x 4.0mm
2003F185PS030	ProntoSIL 120-3-C18H 3um 200 x 3.0mm
2002F185PS030	ProntoSIL 120-3-C18H 3um 200 x 2.0mm
2546F185PS030	ProntoSIL 120-3-C18H 3um 250 x 4.6mm
2504F185PS030	ProntoSIL 120-3-C18H 3um 250 x 4.0mm
2503F185PS030	ProntoSIL 120-3-C18H 3um 250 x 3.0mm
2502F185PS030	ProntoSIL 120-3-C18H 3um 250 x 2.0mm
10P4F185PS030	ProntoSIL 120-3-C18H PEEK column 3um 100 x 4.0mm

ProntoSIL C18 H Columns



PART NUMBER	DESCRIPTION
12P4F185PS030	ProntoSIL 120-3-C18H PEEK column 3um 125 x 4.0mm
15P4F185PS030	ProntoSIL 120-3-C18H PEEK column 3um 150 x 4.0mm
20P4F185PS030	ProntoSIL 120-3-C18H PEEK column 3um 200 x 4.0mm
25P4F185PS030	ProntoSIL 120-3-C18H PEEK column 3um 250 x 4.0mm
0146F185PS050	ProntoSIL 120-5-C18H Guard 5um 14 x 4.6mm
0104F185PS050	ProntoSIL 120-5-C18H Guard 5um 14 x 4.0mm
1046F185PS050	ProntoSIL 120-5-C18H 5um 100 x 4.6mm
1004F185PS050	ProntoSIL 120-5-C18H 5um 100 x 4.0mm
1003F185PS050	ProntoSIL 120-5-C18H 5um 100 x 3.0mm
1002F185PS050	ProntoSIL 120-5-C18H 5um 100 x 2.0mm
1246F185PS050	ProntoSIL 120-5-C18H 5um 125 x 4.6mm
1204F185PS050	ProntoSIL 120-5-C18H 5um 125 x 4.0mm
1203F185PS050	ProntoSIL 120-5-C18H 5um 125 x 3.0mm
1202F185PS050	ProntoSIL 120-5-C18H 5um 125 x 2.0mm
1546F185PS050	ProntoSIL 120-5-C18H 5um 150 x 4.6mm
1504F185PS050	ProntoSIL 120-5-C18H 5um 150 x 4.0mm
1503F185PS050	ProntoSIL 120-5-C18H 5um 150 x 3.0mm
1502F185PS050	ProntoSIL 120-5-C18H 5um 150 x 2.0mm
2046F185PS050	ProntoSIL 120-5-C18H 5um 200 x 4.6mm
2004F185PS050	ProntoSIL 120-5-C18H 5um 200 x 4.0mm
2003F185PS050	ProntoSIL 120-5-C18H 5um 200 x 3.0mm
2002F185PS050	ProntoSIL 120-5-C18H 5um 200 x 2.0mm
2546F185PS050	ProntoSIL 120-5-C18H 5um 250 x 4.6mm
2504F185PS050	ProntoSIL 120-5-C18H 5um 250 x 4.0mm
2503F185PS050	ProntoSIL 120-5-C18H 5um 250 x 3.0mm
2502F185PS050	ProntoSIL 120-5-C18H 5um 250 x 2.0mm
3046F185PS050	ProntoSIL 120-5-C18H 5um 300 x 4.6mm
3004F185PS050	ProntoSIL 120-5-C18H 5um 300 x 4.0mm
3003F185PS050	ProntoSIL 120-5-C18H 5um 300 x 3.0mm
3002F185PS050	ProntoSIL 120-5-C18H 5um 300 x 2.0mm
10P4F185PS050	ProntoSIL 120-5-C18H PEEK column 5um 100 x 4.0mm
12P4F185PS050	ProntoSIL 120-5-C18H PEEK column 5um 125 x 4.0mm
15P4F185PS050	ProntoSIL 120-5-C18H PEEK column 5um 150 x 4.0mm
20P4F185PS050	ProntoSIL 120-5-C18H PEEK column 5um 200 x 4.0mm
25P4F185PS050	ProntoSIL 120-5-C18H PEEK column 5um 250 x 4.0mm
30P4F185PS050	ProntoSIL 120-5-C18H PEEK column 5um 300 x 4.0mm
0146F185PS100	ProntoSIL 120-10-C18H Guard 10um 14 x 4.6mm
0104F185PS100	ProntoSIL 120-10-C18H Guard 10um 14 x 4.0mm
1046F185PS100	ProntoSIL 120-10-C18H 10um 100 x 4.6mm
1004F185PS100	ProntoSIL 120-10-C18H 10um 100 x 4.0mm
1003F185PS100	ProntoSIL 120-10-C18H 10um 100 x 3.0mm
1002F185PS100	ProntoSIL 120-10-C18H 10um 100 x 2.0mm
1246F185PS100	ProntoSIL 120-10-C18H 10um 125 x 4.6mm
1204F185PS100	ProntoSIL 120-10-C18H 10um 125 x 4.0mm
1203F185PS100	ProntoSIL 120-10-C18H 10um 125 x 3.0mm
1202F185PS100	ProntoSIL 120-10-C18H 10um 125 x 2.0mm
1546F185PS100	ProntoSIL 120-10-C18H 10um 150 x 4.6mm

PART NUMBER	DESCRIPTION
1504F185PS100	ProntoSIL 120-10-C18H 10um 150 x 4.0mm
1503F185PS100	ProntoSIL 120-10-C18H 10um 150 x 3.0mm
1502F185PS100	ProntoSIL 120-10-C18H 10um 150 x 2.0mm
2046F185PS100	ProntoSIL 120-10-C18H 10um 200 x 4.6mm
2004F185PS100	ProntoSIL 120-10-C18H 10um 200 x 4.0mm
2003F185PS100	ProntoSIL 120-10-C18H 10um 200 x 3.0mm
2002F185PS100	ProntoSIL 120-10-C18H 10um 200 x 2.0mm
2546F185PS100	ProntoSIL 120-10-C18H 10um 250 x 4.6mm
2504F185PS100	ProntoSIL 120-10-C18H 10um 250 x 4.0mm
2503F185PS100	ProntoSIL 120-10-C18H 10um 250 x 3.0mm
2502F185PS100	ProntoSIL 120-10-C18H 10um 250 x 2.0mm
3046F185PS100	ProntoSIL 120-10-C18H 10um 300 x 4.6mm
3004F185PS100	ProntoSIL 120-10-C18H 10um 300 x 4.0mm
3003F185PS100	ProntoSIL 120-10-C18H 10um 300 x 3.0mm
3002F185PS100	ProntoSIL 120-10-C18H 10um 300 x 2.0mm
10P4F185PS100	ProntoSIL 120-10-C18H PEEK column 10um 100 x 4.0mm
12P4F185PS100	ProntoSIL 120-10-C18H PEEK column 10um 125 x 4.0mm
15P4F185PS100	ProntoSIL 120-10-C18H PEEK column 10um 150 x 4.0mm
20P4F185PS100	ProntoSIL 120-10-C18H PEEK column 10um 200 x 4.0mm
25P4F185PS100	ProntoSIL 120-10-C18H PEEK column 10um 250 x 4.0mm
30P4F185PS100	ProntoSIL 120-10-C18H PEEK column 10um 300 x 4.0mm
0146H185PS030	ProntoSIL 200-3-C18H Guard 3um 14 x 4.6mm
0104H185PS030	ProntoSIL 200-3-C18H Guard 3um 14 x 4.0mm
1046H185PS030	ProntoSIL 200-3-C18H 3um 100 x 4.6mm
1004H185PS030	ProntoSIL 200-3-C18H 3um 100 x 4.0mm
1003H185PS030	ProntoSIL 200-3-C18H 3um 100 x 3.0mm
1002H185PS030	ProntoSIL 200-3-C18H 3um 100 x 2.0mm
1246H185PS030	ProntoSIL 200-3-C18H 3um 125 x 4.6mm
1204H185PS030	ProntoSIL 200-3-C18H 3um 125 x 4.0mm
1203H185PS030	ProntoSIL 200-3-C18H 3um 125 x 3.0mm
1202H185PS030	ProntoSIL 200-3-C18H 3um 125 x 2.0mm
1546H185PS030	ProntoSIL 200-3-C18H 3um 150 x 4.6mm
1504H185PS030	ProntoSIL 200-3-C18H 3um 150 x 4.0mm
1503H185PS030	ProntoSIL 200-3-C18H 3um 150 x 3.0mm
1502H185PS030	ProntoSIL 200-3-C18H 3um 150 x 2.0mm
2046H185PS030	ProntoSIL 200-3-C18H 3um 200 x 4.6mm
2004H185PS030	ProntoSIL 200-3-C18H 3um 200 x 4.0mm
2003H185PS030	ProntoSIL 200-3-C18H 3um 200 x 3.0mm
2002H185PS030	ProntoSIL 200-3-C18H 3um 200 x 2.0mm
2546H185PS030	ProntoSIL 200-3-C18H 3um 250 x 4.6mm
2504H185PS030	ProntoSIL 200-3-C18H 3um 250 x 4.0mm
2503H185PS030	ProntoSIL 200-3-C18H 3um 250 x 3.0mm
2502H185PS030	ProntoSIL 200-3-C18H 3um 250 x 2.0mm
10P4H185PS030	ProntoSIL 200-3-C18H PEEK column 3um 100 x 4.0mm
12P4H185PS030	ProntoSIL 200-3-C18H PEEK column 3um 125 x 4.0mm
15P4H185PS030	ProntoSIL 200-3-C18H PEEK column 3um 150 x 4.0mm
20P4H185PS030	ProntoSIL 200-3-C18H PEEK column 3um 200 x 4.0mm



# ProntoSIL C18(C8) SH Columns(60A, 120A, 200A, 300A)

ProntoSIL C18(C8) SH Columns

PART NUMBER	DESCRIPTION
0146F180PS030	ProntoSIL 120-3-C18SH Guard 3um 14 x 4.6mm
0104F180PS030	ProntoSIL 120-3-C18SH Guard 3um 14 x 4.0mm
1046F180PS030	ProntoSIL 120-3-C18SH 3um 100 x 4.6mm
1004F180PS030	ProntoSIL 120-3-C18SH 3um 100 x 4.0mm
1003F180PS030	ProntoSIL 120-3-C18SH 3um 100 x 3.0mm
1002F180PS030	ProntoSIL 120-3-C18SH 3um 100 x 2.0mm
1246F180PS030	ProntoSIL 120-3-C18SH 3um 125 x 4.6mm
1204F180PS030	ProntoSIL 120-3-C18SH 3um 125 x 4.0mm
1203F180PS030	ProntoSIL 120-3-C18SH 3um 125 x 3.0mm
1202F180PS030	ProntoSIL 120-3-C18SH 3um 125 x 2.0mm
1546F180PS030	ProntoSIL 120-3-C18SH 3um 150 x 4.6mm
1504F180PS030	ProntoSIL 120-3-C18SH 3um 150 x 4.0mm
1503F180PS030	ProntoSIL 120-3-C18SH 3um 150 x 3.0mm
1502F180PS030	ProntoSIL 120-3-C18SH 3um 150 x 2.0mm
2046F180PS030	ProntoSIL 120-3-C18SH 3um 200 x 4.6mm
2004F180PS030	ProntoSIL 120-3-C18SH 3um 200 x 4.0mm
2003F180PS030	ProntoSIL 120-3-C18SH 3um 200 x 3.0mm
2002F180PS030	ProntoSIL 120-3-C18SH 3um 200 x 2.0mm
2546F180PS030	ProntoSIL 120-3-C18SH 3um 250 x 4.6mm
2504F180PS030	ProntoSIL 120-3-C18SH 3um 250 x 4.0mm
2503F180PS030	ProntoSIL 120-3-C18SH 3um 250 x 3.0mm
2502F180PS030	ProntoSIL 120-3-C18SH 3um 250 x 2.0mm
10P4F180PS030	ProntoSIL 120-3-C18SH PEEK column 3um 100 x 4.0mm
12P4F180PS030	ProntoSIL 120-3-C18SH PEEK column 3um 125 x 4.0mm
15P4F180PS030	ProntoSIL 120-3-C18SH PEEK column 3um 150 x 4.0mm
20P4F180PS030	ProntoSIL 120-3-C18SH PEEK column 3um 200 x 4.0mm
25P4F180PS030	ProntoSIL 120-3-C18SH PEEK column 3um 250 x 4.0mm
0146F180PS050	ProntoSIL 120-5-C18SH Guard 5um 14 x 4.6mm
0104F180PS050	ProntoSIL 120-5-C18SH Guard 5um 14 x 4.0mm
1046F180PS050	ProntoSIL 120-5-C18SH 5um 100 x 4.6mm
1004F180PS050	ProntoSIL 120-5-C18SH 5um 100 x 4.0mm
1003F180PS050	ProntoSIL 120-5-C18SH 5um 100 x 3.0mm
1002F180PS050	ProntoSIL 120-5-C18SH 5um 100 x 2.0mm
1246F180PS050	ProntoSIL 120-5-C18SH 5um 125 x 4.6mm
1204F180PS050	ProntoSIL 120-5-C18SH 5um 125 x 4.0mm
1203F180PS050	ProntoSIL 120-5-C18SH 5um 125 x 3.0mm

PART NUMBER	DESCRIPTION
1202F180PS050	ProntoSIL 120-5-C18SH 5um 125 x 2.0mm
1546F180PS050	ProntoSIL 120-5-C18SH 5um 150 x 4.6mm
1504F180PS050	ProntoSIL 120-5-C18SH 5um 150 x 4.0mm
1503F180PS050	ProntoSIL 120-5-C18SH 5um 150 x 3.0mm
1502F180PS050	ProntoSIL 120-5-C18SH 5um 150 x 2.0mm
2046F180PS050	ProntoSIL 120-5-C18SH 5um 200 x 4.6mm
2004F180PS050	ProntoSIL 120-5-C18SH 5um 200 x 4.0mm
2003F180PS050	ProntoSIL 120-5-C18SH 5um 200 x 3.0mm
2002F180PS050	ProntoSIL 120-5-C18SH 5um 200 x 2.0mm
2546F180PS050	ProntoSIL 120-5-C18SH 5um 250 x 4.6mm
2504F180PS050	ProntoSIL 120-5-C18SH 5um 250 x 4.0mm
2503F180PS050	ProntoSIL 120-5-C18SH 5um 250 x 3.0mm
2502F180PS050	ProntoSIL 120-5-C18SH 5um 250 x 2.0mm
3046F180PS050	ProntoSIL 120-5-C18SH 5um 300 x 4.6mm
3004F180PS050	ProntoSIL 120-5-C18SH 5um 300 x 4.0mm
3003F180PS050	ProntoSIL 120-5-C18SH 5um 300 x 3.0mm
3002F180PS050	ProntoSIL 120-5-C18SH 5um 300 x 2.0mm
10P4F180PS050	ProntoSIL 120-5-C18SH PEEK column 5um 100 x 4.0mm
12P4F180PS050	ProntoSIL 120-5-C18SH PEEK column 5um 125 x 4.0mm
15P4F180PS050	ProntoSIL 120-5-C18SH PEEK column 5um 150 x 4.0mm
20P4F180PS050	ProntoSIL 120-5-C18SH PEEK column 5um 200 x 4.0mm
25P4F180PS050	ProntoSIL 120-5-C18SH PEEK column 5um 250 x 4.0mm
30P4F180PS050	ProntoSIL 120-5-C18SH PEEK column 5um 300 x 4.0mm
0146F180PS100	ProntoSIL 120-10-C18SH Guard 10um 14 x 4.6mm
0104F180PS100	ProntoSIL 120-10-C18SH Guard 10um 14 x 4.0mm
1046F180PS100	ProntoSIL 120-10-C18SH 10um 100 x 4.6mm
1004F180PS100	ProntoSIL 120-10-C18SH 10um 100 x 4.0mm
1003F180PS100	ProntoSIL 120-10-C18SH 10um 100 x 3.0mm
1002F180PS100	ProntoSIL 120-10-C18SH 10um 100 x 2.0mm
1246F180PS100	ProntoSIL 120-10-C18SH 10um 125 x 4.6mm
1204F180PS100	ProntoSIL 120-10-C18SH 10um 125 x 4.0mm
1203F180PS100	ProntoSIL 120-10-C18SH 10um 125 x 3.0mm
1202F180PS100	ProntoSIL 120-10-C18SH 10um 125 x 2.0mm
1546F180PS100	ProntoSIL 120-10-C18SH 10um 150 x 4.6mm
1504F180PS100	ProntoSIL 120-10-C18SH 10um 150 x 4.0mm
1503F180PS100	ProntoSIL 120-10-C18SH 10um 150 x 3.0mm

PART NUMBER	DESCRIPTION
1502F180PS100	ProntoSIL 120-10-C18SH 10um 150 x 2.0mm
2046F180PS100	ProntoSIL 120-10-C18SH 10um 200 x 4.6mm
2004F180PS100	ProntoSIL 120-10-C18SH 10um 200 x 4.0mm
2003F180PS100	ProntoSIL 120-10-C18SH 10um 200 x 3.0mm
2002F180PS100	ProntoSIL 120-10-C18SH 10um 200 x 2.0mm
2546F180PS100	ProntoSIL 120-10-C18SH 10um 250 x 4.6mm
2504F180PS100	ProntoSIL 120-10-C18SH 10um 250 x 4.0mm
2503F180PS100	ProntoSIL 120-10-C18SH 10um 250 x 3.0mm
2502F180PS100	ProntoSIL 120-10-C18SH 10um 250 x 2.0mm
3046F180PS100	ProntoSIL 120-10-C18SH 10um 300 x 4.6mm
3004F180PS100	ProntoSIL 120-10-C18SH 10um 300 x 4.0mm
3003F180PS100	ProntoSIL 120-10-C18SH 10um 300 x 3.0mm
3002F180PS100	ProntoSIL 120-10-C18SH 10um 300 x 2.0mm
10P4F180PS100	ProntoSIL 120-10-C18SH PEEK column 10um 100 x 4.0mm
12P4F180PS100	ProntoSIL 120-10-C18SH PEEK column 10um 125 x 4.0mm
15P4F180PS100	ProntoSIL 120-10-C18SH PEEK column 10um 150 x 4.0mm
20P4F180PS100	ProntoSIL 120-10-C18SH PEEK column 10um 200 x 4.0mm
25P4F180PS100	ProntoSIL 120-10-C18SH PEEK column 10um 250 x 4.0mm
30P4F180PS100	ProntoSIL 120-10-C18SH PEEK column 10um 300 x 4.0mm
0146F080PS030	ProntoSIL 120-3-C8 SH Guard 3um 14 x 4.6mm
0104F080PS030	ProntoSIL 120-3-C8 SH Guard 3um 14 x 4.0mm
1046F080PS030	ProntoSIL 120-3-C8 SH 3um 100 x 4.6mm
1004F080PS030	ProntoSIL 120-3-C8 SH 3um 100 x 4.0mm
1003F080PS030	ProntoSIL 120-3-C8 SH 3um 100 x 3.0mm
1002F080PS030	ProntoSIL 120-3-C8 SH 3um 100 x 2.0mm
1246F080PS030	ProntoSIL 120-3-C8 SH 3um 125 x 4.6mm
1204F080PS030	ProntoSIL 120-3-C8 SH 3um 125 x 4.0mm
1203F080PS030	ProntoSIL 120-3-C8 SH 3um 125 x 3.0mm
1202F080PS030	ProntoSIL 120-3-C8 SH 3um 125 x 2.0mm
1546F080PS030	ProntoSIL 120-3-C8 SH 3um 150 x 4.6mm
1504F080PS030	ProntoSIL 120-3-C8 SH 3um 150 x 4.0mm
1503F080PS030	ProntoSIL 120-3-C8 SH 3um 150 x 3.0mm
1502F080PS030	ProntoSIL 120-3-C8 SH 3um 150 x 2.0mm
2046F080PS030	ProntoSIL 120-3-C8 SH 3um 200 x 4.6mm
2004F080PS030	ProntoSIL 120-3-C8 SH 3um 200 x 4.0mm
2003F080PS030	ProntoSIL 120-3-C8 SH 3um 200 x 3.0mm
2002F080PS030	ProntoSIL 120-3-C8 SH 3um 200 x 2.0mm
2546F080PS030	ProntoSIL 120-3-C8 SH 3um 250 x 4.6mm
2504F080PS030	ProntoSIL 120-3-C8 SH 3um 250 x 4.0mm
2503F080PS030	ProntoSIL 120-3-C8 SH 3um 250 x 3.0mm
2502F080PS030	ProntoSIL 120-3-C8 SH 3um 250 x 2.0mm
10P4F080PS030	ProntoSIL 120-3-C8 SH PEEK column 3um 100 x 4.0mm

PART NUMBER	DESCRIPTION
12P4F080PS030	ProntoSIL 120-3-C8 SH PEEK column 3um 125 x 4.0mm
15P4F080PS030	ProntoSIL 120-3-C8 SH PEEK column 3um 150 x 4.0mm
20P4F080PS030	ProntoSIL 120-3-C8 SH PEEK column 3um 200 x 4.0mm
25P4F080PS030	ProntoSIL 120-3-C8 SH PEEK column 3um 250 x 4.0mm
0146C080PS050	ProntoSIL 60-5-C8 SH Guard 5um 14 x 4.6mm
0104C080PS050	ProntoSIL 60-5-C8 SH Guard 5um 14 x 4.0mm
1046C080PS050	ProntoSIL 60-5-C8 SH 5um 100 x 4.6mm
1004C080PS050	ProntoSIL 60-5-C8 SH 5um 100 x 4.0mm
1003C080PS050	ProntoSIL 60-5-C8 SH 5um 100 x 3.0mm
1002C080PS050	ProntoSIL 60-5-C8 SH 5um 100 x 2.0mm
1246C080PS050	ProntoSIL 60-5-C8 SH 5um 125 x 4.6mm
1204C080PS050	ProntoSIL 60-5-C8 SH 5um 125 x 4.0mm
1203C080PS050	ProntoSIL 60-5-C8 SH 5um 125 x 3.0mm
1202C080PS050	ProntoSIL 60-5-C8 SH 5um 125 x 2.0mm
1546C080PS050	ProntoSIL 60-5-C8 SH 5um 150 x 4.6mm
1504C080PS050	ProntoSIL 60-5-C8 SH 5um 150 x 4.0mm
1503C080PS050	ProntoSIL 60-5-C8 SH 5um 150 x 3.0mm
1502C080PS050	ProntoSIL 60-5-C8 SH 5um 150 x 2.0mm
2046C080PS050	ProntoSIL 60-5-C8 SH 5um 200 x 4.6mm
2004C080PS050	ProntoSIL 60-5-C8 SH 5um 200 x 4.0mm
2003C080PS050	ProntoSIL 60-5-C8 SH 5um 200 x 3.0mm
2002C080PS050	ProntoSIL 60-5-C8 SH 5um 200 x 2.0mm
2546C080PS050	ProntoSIL 60-5-C8 SH 5um 250 x 4.6mm
2504C080PS050	ProntoSIL 60-5-C8 SH 5um 250 x 4.0mm
2503C080PS050	ProntoSIL 60-5-C8 SH 5um 250 x 3.0mm
2502C080PS050	ProntoSIL 60-5-C8 SH 5um 250 x 2.0mm
3046C080PS050	ProntoSIL 60-5-C8 SH 5um 300 x 4.6mm
3004C080PS050	ProntoSIL 60-5-C8 SH 5um 300 x 4.0mm
3003C080PS050	ProntoSIL 60-5-C8 SH 5um 300 x 3.0mm
3002C080PS050	ProntoSIL 60-5-C8 SH 5um 300 x 2.0mm
10P4C080PS050	ProntoSIL 60-5-C8 SH PEEK column 5um 100 x 4.0mm
12P4C080PS050	ProntoSIL 60-5-C8 SH PEEK column 5um 125 x 4.0mm
15P4C080PS050	ProntoSIL 60-5-C8 SH PEEK column 5um 150 x 4.0mm
20P4C080PS050	ProntoSIL 60-5-C8 SH PEEK column 5um 200 x 4.0mm
25P4C080PS050	ProntoSIL 60-5-C8 SH PEEK column 5um 250 x 4.0mm
30P4C080PS050	ProntoSIL 60-5-C8 SH PEEK column 5um 300 x 4.0mm
0146F080PS050	ProntoSIL 120-5-C8 SH Guard 5um 14 x 4.6mm
0104F080PS050	ProntoSIL 120-5-C8 SH Guard 5um 14 x 4.0mm
1046F080PS050	ProntoSIL 120-5-C8 SH 5um 100 x 4.6mm
1004F080PS050	ProntoSIL 120-5-C8 SH 5um 100 x 4.0mm
1003F080PS050	ProntoSIL 120-5-C8 SH 5um 100 x 3.0mm
1002F080PS050	ProntoSIL 120-5-C8 SH 5um 100 x 2.0mm
1246F080PS050	ProntoSIL 120-5-C8 SH 5um 125 x 4.6mm
1204F080PS050	ProntoSIL 120-5-C8 SH 5um 125 x 4.0mm

# ProntoSIL C18(C8) SH Columns

PART NUMBER	DESCRIPTION
1203F080PS050	ProntoSIL 120-5-C8 SH 5um 125 x 3.0mm
1202F080PS050	ProntoSIL 120-5-C8 SH 5um 125 x 2.0mm
1546F080PS050	ProntoSIL 120-5-C8 SH 5um 150 x 4.6mm
1504F080PS050	ProntoSIL 120-5-C8 SH 5um 150 x 4.0mm
1503F080PS050	ProntoSIL 120-5-C8 SH 5um 150 x 3.0mm
1502F080PS050	ProntoSIL 120-5-C8 SH 5um 150 x 2.0mm
2046F080PS050	ProntoSIL 120-5-C8 SH 5um 200 x 4.6mm
2004F080PS050	ProntoSIL 120-5-C8 SH 5um 200 x 4.0mm
2003F080PS050	ProntoSIL 120-5-C8 SH 5um 200 x 3.0mm
2002F080PS050	ProntoSIL 120-5-C8 SH 5um 200 x 2.0mm
2546F080PS050	ProntoSIL 120-5-C8 SH 5um 250 x 4.6mm
2504F080PS050	ProntoSIL 120-5-C8 SH 5um 250 x 4.0mm
2503F080PS050	ProntoSIL 120-5-C8 SH 5um 250 x 3.0mm
2502F080PS050	ProntoSIL 120-5-C8 SH 5um 250 x 2.0mm
3046F080PS050	ProntoSIL 120-5-C8 SH 5um 300 x 4.6mm
3004F080PS050	ProntoSIL 120-5-C8 SH 5um 300 x 4.0mm
3003F080PS050	ProntoSIL 120-5-C8 SH 5um 300 x 3.0mm
3002F080PS050	ProntoSIL 120-5-C8 SH 5um 300 x 2.0mm
10P4F080PS050	ProntoSIL 120-5-C8 SH PEEK column 5um 100 x 4.0mm
12P4F080PS050	ProntoSIL 120-5-C8 SH PEEK column 5um 125 x 4.0mm
15P4F080PS050	ProntoSIL 120-5-C8 SH PEEK column 5um 150 x 4.0mm
20P4F080PS050	ProntoSIL 120-5-C8 SH PEEK column 5um 200 x 4.0mm
25P4F080PS050	ProntoSIL 120-5-C8 SH PEEK column 5um 250 x 4.0mm
30P4F080PS050	ProntoSIL 120-5-C8 SH PEEK column 5um 300 x 4.0mm
0146F080PS100	ProntoSIL 120-10-C8 SH Guard 10um 14 x 4.6mm
0104F080PS100	ProntoSIL 120-10-C8 SH Guard 10um 14 x 4.0mm
1046F080PS100	ProntoSIL 120-10-C8 SH 10um 100 x 4.6mm
1004F080PS100	ProntoSIL 120-10-C8 SH 10um 100 x 4.0mm
1003F080PS100	ProntoSIL 120-10-C8 SH 10um 100 x 3.0mm
1002F080PS100	ProntoSIL 120-10-C8 SH 10um 100 x 2.0mm
1246F080PS100	ProntoSIL 120-10-C8 SH 10um 125 x 4.6mm
1204F080PS100	ProntoSIL 120-10-C8 SH 10um 125 x 4.0mm
1203F080PS100	ProntoSIL 120-10-C8 SH 10um 125 x 3.0mm
1202F080PS100	ProntoSIL 120-10-C8 SH 10um 125 x 2.0mm
1546F080PS100	ProntoSIL 120-10-C8 SH 10um 150 x 4.6mm
1504F080PS100	ProntoSIL 120-10-C8 SH 10um 150 x 4.0mm
1503F080PS100	ProntoSIL 120-10-C8 SH 10um 150 x 3.0mm
1502F080PS100	ProntoSIL 120-10-C8 SH 10um 150 x 2.0mm
2046F080PS100	ProntoSIL 120-10-C8 SH 10um 200 x 4.6mm
2004F080PS100	ProntoSIL 120-10-C8 SH 10um 200 x 4.0mm
2003F080PS100	ProntoSIL 120-10-C8 SH 10um 200 x 3.0mm
2002F080PS100	ProntoSIL 120-10-C8 SH 10um 200 x 2.0mm
2546F080PS100	ProntoSIL 120-10-C8 SH 10um 250 x 4.6mm

PART NUMBER	DESCRIPTION
2504F080PS100	ProntoSIL 120-10-C8 SH 10um 250 x 4.0mm
2503F080PS100	ProntoSIL 120-10-C8 SH 10um 250 x 3.0mm
2502F080PS100	ProntoSIL 120-10-C8 SH 10um 250 x 2.0mm
3046F080PS100	ProntoSIL 120-10-C8 SH 10um 300 x 4.6mm
3004F080PS100	ProntoSIL 120-10-C8 SH 10um 300 x 4.0mm
3003F080PS100	ProntoSIL 120-10-C8 SH 10um 300 x 3.0mm
3002F080PS100	ProntoSIL 120-10-C8 SH 10um 300 x 2.0mm
10P4F080PS100	ProntoSIL 120-10-C8 SH PEEK column 10um 100 x 4.0mm
12P4F080PS100	ProntoSIL 120-10-C8 SH PEEK column 10um 125 x 4.0mm
15P4F080PS100	ProntoSIL 120-10-C8 SH PEEK column 10um 150 x 4.0mm
20P4F080PS100	ProntoSIL 120-10-C8 SH PEEK column 10um 200 x 4.0mm
25P4F080PS100	ProntoSIL 120-10-C8 SH PEEK column 10um 250 x 4.0mm
30P4F080PS100	ProntoSIL 120-10-C8 SH PEEK column 10um 300 x 4.0mm
0146H080PS030	ProntoSIL 200-3-C8 SH Guard 3um 14 x 4.6mm
0104H080PS030	ProntoSIL 200-3-C8 SH Guard 3um 14 x 4.0mm
1046H080PS030	ProntoSIL 200-3-C8 SH 3um 100 x 4.6mm
1004H080PS030	ProntoSIL 200-3-C8 SH 3um 100 x 4.0mm
1003H080PS030	ProntoSIL 200-3-C8 SH 3um 100 x 3.0mm
1002H080PS030	ProntoSIL 200-3-C8 SH 3um 100 x 2.0mm
1246H080PS030	ProntoSIL 200-3-C8 SH 3um 125 x 4.6mm
1204H080PS030	ProntoSIL 200-3-C8 SH 3um 125 x 4.0mm
1203H080PS030	ProntoSIL 200-3-C8 SH 3um 125 x 3.0mm
1202H080PS030	ProntoSIL 200-3-C8 SH 3um 125 x 2.0mm
1546H080PS030	ProntoSIL 200-3-C8 SH 3um 150 x 4.6mm
1504H080PS030	ProntoSIL 200-3-C8 SH 3um 150 x 4.0mm
1503H080PS030	ProntoSIL 200-3-C8 SH 3um 150 x 3.0mm
1502H080PS030	ProntoSIL 200-3-C8 SH 3um 150 x 2.0mm
2046H080PS030	ProntoSIL 200-3-C8 SH 3um 200 x 4.6mm
2004H080PS030	ProntoSIL 200-3-C8 SH 3um 200 x 4.0mm
2003H080PS030	ProntoSIL 200-3-C8 SH 3um 200 x 3.0mm
2002H080PS030	ProntoSIL 200-3-C8 SH 3um 200 x 2.0mm
2546H080PS030	ProntoSIL 200-3-C8 SH 3um 250 x 4.6mm
2504H080PS030	ProntoSIL 200-3-C8 SH 3um 250 x 4.0mm
2503H080PS030	ProntoSIL 200-3-C8 SH 3um 250 x 3.0mm
2502H080PS030	ProntoSIL 200-3-C8 SH 3um 250 x 2.0mm
10P4H080PS030	ProntoSIL 200-3-C8 SH PEEK column 3um 100 x 4.0mm
12P4H080PS030	ProntoSIL 200-3-C8 SH PEEK column 3um 125 x 4.0mm
15P4H080PS030	ProntoSIL 200-3-C8 SH PEEK column 3um 150 x 4.0mm
20P4H080PS030	ProntoSIL 200-3-C8 SH PEEK column 3um 200 x 4.0mm
25P4H080PS030	ProntoSIL 200-3-C8 SH PEEK column 3um 250 x 4.0mm



PART NUMBER	DESCRIPTION
0146H080PS050	ProntoSIL 200-5-C8 SH Guard 5um 14 x 4.6mm
0104H080PS050	ProntoSIL 200-5-C8 SH Guard 5um 14 x 4.0mm
1046H080PS050	ProntoSIL 200-5-C8 SH 5um 100 x 4.6mm
1004H080PS050	ProntoSIL 200-5-C8 SH 5um 100 x 4.0mm
1003H080PS050	ProntoSIL 200-5-C8 SH 5um 100 x 3.0mm
1002H080PS050	ProntoSIL 200-5-C8 SH 5um 100 x 2.0mm
1246H080PS050	ProntoSIL 200-5-C8 SH 5um 125 x 4.6mm
1204H080PS050	ProntoSIL 200-5-C8 SH 5um 125 x 4.0mm
1203H080PS050	ProntoSIL 200-5-C8 SH 5um 125 x 3.0mm
1202H080PS050	ProntoSIL 200-5-C8 SH 5um 125 x 2.0mm
1546H080PS050	ProntoSIL 200-5-C8 SH 5um 150 x 4.6mm
1504H080PS050	ProntoSIL 200-5-C8 SH 5um 150 x 4.0mm
1503H080PS050	ProntoSIL 200-5-C8 SH 5um 150 x 3.0mm
1502H080PS050	ProntoSIL 200-5-C8 SH 5um 150 x 2.0mm
2046H080PS050	ProntoSIL 200-5-C8 SH 5um 200 x 4.6mm
2004H080PS050	ProntoSIL 200-5-C8 SH 5um 200 x 4.0mm
2003H080PS050	ProntoSIL 200-5-C8 SH 5um 200 x 3.0mm
2002H080PS050	ProntoSIL 200-5-C8 SH 5um 200 x 2.0mm
2546H080PS050	ProntoSIL 200-5-C8 SH 5um 250 x 4.6mm
2504H080PS050	ProntoSIL 200-5-C8 SH 5um 250 x 4.0mm
2503H080PS050	ProntoSIL 200-5-C8 SH 5um 250 x 3.0mm
2502H080PS050	ProntoSIL 200-5-C8 SH 5um 250 x 2.0mm
3046H080PS050	ProntoSIL 200-5-C8 SH 5um 300 x 4.6mm
3004H080PS050	ProntoSIL 200-5-C8 SH 5um 300 x 4.0mm
3003H080PS050	ProntoSIL 200-5-C8 SH 5um 300 x 3.0mm
3002H080PS050	ProntoSIL 200-5-C8 SH 5um 300 x 2.0mm
10P4H080PS050	ProntoSIL 200-5-C8 SH PEEK column 5um 100 x 4.0mm
12P4H080PS050	ProntoSIL 200-5-C8 SH PEEK column 5um 125 x 4.0mm
15P4H080PS050	ProntoSIL 200-5-C8 SH PEEK column 5um 150 x 4.0mm
20P4H080PS050	ProntoSIL 200-5-C8 SH PEEK column 5um 200 x 4.0mm
25P4H080PS050	ProntoSIL 200-5-C8 SH PEEK column 5um 250 x 4.0mm
30P4H080PS050	ProntoSIL 200-5-C8 SH PEEK column 5um 300 x 4.0mm
0146K080PS030	ProntoSIL 300-3-C8 SH Guard 3um 14 x 4.6mm
0104K080PS030	ProntoSIL 300-3-C8 SH Guard 3um 14 x 4.0mm
1046K080PS030	ProntoSIL 300-3-C8 SH 3um 100 x 4.6mm
1004K080PS030	ProntoSIL 300-3-C8 SH 3um 100 x 4.0mm
1003K080PS030	ProntoSIL 300-3-C8 SH 3um 100 x 3.0mm
1002K080PS030	ProntoSIL 300-3-C8 SH 3um 100 x 2.0mm
1246K080PS030	ProntoSIL 300-3-C8 SH 3um 125 x 4.6mm
1204K080PS030	ProntoSIL 300-3-C8 SH 3um 125 x 4.0mm
1203K080PS030	ProntoSIL 300-3-C8 SH 3um 125 x 3.0mm
1202K080PS030	ProntoSIL 300-3-C8 SH 3um 125 x 2.0mm
1546K080PS030	ProntoSIL 300-3-C8 SH 3um 150 x 4.6mm

PART NUMBER	DESCRIPTION
1504K080PS030	ProntoSIL 300-3-C8 SH 3um 150 x 4.0mm
1503K080PS030	ProntoSIL 300-3-C8 SH 3um 150 x 3.0mm
1502K080PS030	ProntoSIL 300-3-C8 SH 3um 150 x 2.0mm
2046K080PS030	ProntoSIL 300-3-C8 SH 3um 200 x 4.6mm
2004K080PS030	ProntoSIL 300-3-C8 SH 3um 200 x 4.0mm
2003K080PS030	ProntoSIL 300-3-C8 SH 3um 200 x 3.0mm
2002K080PS030	ProntoSIL 300-3-C8 SH 3um 200 x 2.0mm
2546K080PS030	ProntoSIL 300-3-C8 SH 3um 250 x 4.6mm
2504K080PS030	ProntoSIL 300-3-C8 SH 3um 250 x 4.0mm
2503K080PS030	ProntoSIL 300-3-C8 SH 3um 250 x 3.0mm
2502K080PS030	ProntoSIL 300-3-C8 SH 3um 250 x 2.0mm
10P4K080PS030	ProntoSIL 300-3-C8 SH PEEK column 3um 100 x 4.0mm
12P4K080PS030	ProntoSIL 300-3-C8 SH PEEK column 3um 125 x 4.0mm
15P4K080PS030	ProntoSIL 300-3-C8 SH PEEK column 3um 150 x 4.0mm
20P4K080PS030	ProntoSIL 300-3-C8 SH PEEK column 3um 200 x 4.0mm
25P4K080PS030	ProntoSIL 300-3-C8 SH PEEK column 3um 250 x 4.0mm
0146K080PS050	ProntoSIL 300-5-C8 SH Guard 5um 14 x 4.6mm
0104K080PS050	ProntoSIL 300-5-C8 SH Guard 5um 14 x 4.0mm
1046K080PS050	ProntoSIL 300-5-C8 SH 5um 100 x 4.6mm
1004K080PS050	ProntoSIL 300-5-C8 SH 5um 100 x 4.0mm
1003K080PS050	ProntoSIL 300-5-C8 SH 5um 100 x 3.0mm
1002K080PS050	ProntoSIL 300-5-C8 SH 5um 100 x 2.0mm
1246K080PS050	ProntoSIL 300-5-C8 SH 5um 125 x 4.6mm
1204K080PS050	ProntoSIL 300-5-C8 SH 5um 125 x 4.0mm
1203K080PS050	ProntoSIL 300-5-C8 SH 5um 125 x 3.0mm
1202K080PS050	ProntoSIL 300-5-C8 SH 5um 125 x 2.0mm
1546K080PS050	ProntoSIL 300-5-C8 SH 5um 150 x 4.6mm
1504K080PS050	ProntoSIL 300-5-C8 SH 5um 150 x 4.0mm
1503K080PS050	ProntoSIL 300-5-C8 SH 5um 150 x 3.0mm
1502K080PS050	ProntoSIL 300-5-C8 SH 5um 150 x 2.0mm
2046K080PS050	ProntoSIL 300-5-C8 SH 5um 200 x 4.6mm
2004K080PS050	ProntoSIL 300-5-C8 SH 5um 200 x 4.0mm
2003K080PS050	ProntoSIL 300-5-C8 SH 5um 200 x 3.0mm
2002K080PS050	ProntoSIL 300-5-C8 SH 5um 200 x 2.0mm
2546K080PS050	ProntoSIL 300-5-C8 SH 5um 250 x 4.6mm
2504K080PS050	ProntoSIL 300-5-C8 SH 5um 250 x 4.0mm
2503K080PS050	ProntoSIL 300-5-C8 SH 5um 250 x 3.0mm
2502K080PS050	ProntoSIL 300-5-C8 SH 5um 250 x 2.0mm
3046K080PS050	ProntoSIL 300-5-C8 SH 5um 300- x 4.6mm
3004K080PS050	ProntoSIL 300-5-C8 SH 5um 300- x 4.0mm
3003K080PS050	ProntoSIL 300-5-C8 SH 5um 300- x 3.0mm
3002K080PS050	ProntoSIL 300-5-C8 SH 5um 300- x 2.0mm
10P4K080PS050	ProntoSIL 300-5-C8 SH PEEK column 5um 100 x 4.0mm

PART NUMBER	DESCRIPTION
12P4K080PS050	ProntoSIL 300-5-C8 SH PEEK column 5um 125 x 4.0mm
15P4K080PS050	ProntoSIL 300-5-C8 SH PEEK column 5um 150 x 4.0mm
20P4K080PS050	ProntoSIL 300-5-C8 SH PEEK column 5um 200 x 4.0mm
25P4K080PS050	ProntoSIL 300-5-C8 SH PEEK column 5um 250 x 4.0mm
30P4K080PS050	ProntoSIL 300-5-C8 SH PEEK column 5um 300 x 4.0mm

## ProntoSIL C18 AQ Columns(60A, 120A, 200A, 300A)

### ProntoSIL C18 AQ Columns

PART NUMBER	DESCRIPTION
0146F184PS030	ProntoSIL 120-3-C18AQ Guard 3um 14 x 4.6mm
0104F184PS030	ProntoSIL 120-3-C18AQ Guard 3um 14 x 4.0mm
1046F184PS030	ProntoSIL 120-3-C18AQ 3um 100 x 4.6mm
1004F184PS030	ProntoSIL 120-3-C18AQ 3um 100 x 4.0mm
1003F184PS030	ProntoSIL 120-3-C18AQ 3um 100 x 3.0mm
1002F184PS030	ProntoSIL 120-3-C18AQ 3um 100 x 2.0mm
1246F184PS030	ProntoSIL 120-3-C18AQ 3um 125 x 4.6mm
1204F184PS030	ProntoSIL 120-3-C18AQ 3um 125 x 4.0mm
1203F184PS030	ProntoSIL 120-3-C18AQ 3um 125 x 3.0mm
1202F184PS030	ProntoSIL 120-3-C18AQ 3um 125 x 2.0mm
1546F184PS030	ProntoSIL 120-3-C18AQ 3um 150 x 4.6mm
1504F184PS030	ProntoSIL 120-3-C18AQ 3um 150 x 4.0mm
1503F184PS030	ProntoSIL 120-3-C18AQ 3um 150 x 3.0mm
1502F184PS030	ProntoSIL 120-3-C18AQ 3um 150 x 2.0mm
2046F184PS030	ProntoSIL 120-3-C18AQ 3um 200 x 4.6mm
2004F184PS030	ProntoSIL 120-3-C18AQ 3um 200 x 4.0mm
2003F184PS030	ProntoSIL 120-3-C18AQ 3um 200 x 3.0mm
2002F184PS030	ProntoSIL 120-3-C18AQ 3um 200 x 2.0mm
2546F184PS030	ProntoSIL 120-3-C18AQ 3um 250 x 4.6mm
2504F184PS030	ProntoSIL 120-3-C18AQ 3um 250 x 4.0mm
2503F184PS030	ProntoSIL 120-3-C18AQ 3um 250 x 3.0mm
2502F184PS030	ProntoSIL 120-3-C18AQ 3um 250 x 2.0mm
10P4F184PS030	ProntoSIL 120-3-C18AQ PEEK column 3um 100 x 4.0mm
12P4F184PS030	ProntoSIL 120-3-C18AQ PEEK column 3um 125 x 4.0mm
15P4F184PS030	ProntoSIL 120-3-C18AQ PEEK column 3um 150 x 4.0mm
20P4F184PS030	ProntoSIL 120-3-C18AQ PEEK column 3um 200 x 4.0mm

PART NUMBER	DESCRIPTION
25P4F184PS030	ProntoSIL 120-3-C18AQ PEEK column 3um 250 x 4.0mm
0146F184PS050	ProntoSIL 120-5-C18AQ Guard 5um 14 x 4.6mm
0104F184PS050	ProntoSIL 120-5-C18AQ Guard 5um 14 x 4.0mm
1046F184PS050	ProntoSIL 120-5-C18AQ 5um 100 x 4.6mm
1004F184PS050	ProntoSIL 120-5-C18AQ 5um 100 x 4.0mm
1003F184PS050	ProntoSIL 120-5-C18AQ 5um 100 x 3.0mm
1002F184PS050	ProntoSIL 120-5-C18AQ 5um 100 x 2.0mm
1246F184PS050	ProntoSIL 120-5-C18AQ 5um 125 x 4.6mm
1204F184PS050	ProntoSIL 120-5-C18AQ 5um 125 x 4.0mm
1203F184PS050	ProntoSIL 120-5-C18AQ 5um 125 x 3.0mm
1202F184PS050	ProntoSIL 120-5-C18AQ 5um 125 x 2.0mm
1546F184PS050	ProntoSIL 120-5-C18AQ 5um 150 x 4.6mm
1504F184PS050	ProntoSIL 120-5-C18AQ 5um 150 x 4.0mm
1503F184PS050	ProntoSIL 120-5-C18AQ 5um 150 x 3.0mm
1502F184PS050	ProntoSIL 120-5-C18AQ 5um 150 x 2.0mm
2046F184PS050	ProntoSIL 120-5-C18AQ 5um 200 x 4.6mm
2004F184PS050	ProntoSIL 120-5-C18AQ 5um 200 x 4.0mm
2003F184PS050	ProntoSIL 120-5-C18AQ 5um 200 x 3.0mm
2002F184PS050	ProntoSIL 120-5-C18AQ 5um 200 x 2.0mm
2546F184PS050	ProntoSIL 120-5-C18AQ 5um 250 x 4.6mm
2504F184PS050	ProntoSIL 120-5-C18AQ 5um 250 x 4.0mm
2503F184PS050	ProntoSIL 120-5-C18AQ 5um 250 x 3.0mm
2502F184PS050	ProntoSIL 120-5-C18AQ 5um 250 x 2.0mm
3046F184PS050	ProntoSIL 120-5-C18AQ 5um 300 x 4.6mm
3004F184PS050	ProntoSIL 120-5-C18AQ 5um 300 x 4.0mm
3003F184PS050	ProntoSIL 120-5-C18AQ 5um 300 x 3.0mm
3002F184PS050	ProntoSIL 120-5-C18AQ 5um 300 x 2.0mm

PART NUMBER	DESCRIPTION
10P4F184PS050	ProntoSIL 120-5-C18AQ PEEK column 5um 100 x 4.0mm
12P4F184PS050	ProntoSIL 120-5-C18AQ PEEK column 5um 125 x 4.0mm
15P4F184PS050	ProntoSIL 120-5-C18AQ PEEK column 5um 150 x 4.0mm
20P4F184PS050	ProntoSIL 120-5-C18AQ PEEK column 5um 200 x 4.0mm
25P4F184PS050	ProntoSIL 120-5-C18AQ PEEK column 5um 250 x 4.0mm
30P4F184PS050	ProntoSIL 120-5-C18AQ PEEK column 5um 300 x 4.0mm
0146F184PS100	ProntoSIL 120-10-C18AQ Guard 10um 14 x 4.6mm
0104F184PS100	ProntoSIL 120-10-C18AQ Guard 10um 14 x 4.0mm
1046F184PS100	ProntoSIL 120-10-C18AQ 10um 100 x 4.6mm
1004F184PS100	ProntoSIL 120-10-C18AQ 10um 100 x 4.0mm
1003F184PS100	ProntoSIL 120-10-C18AQ 10um 100 x 3.0mm
1002F184PS100	ProntoSIL 120-10-C18AQ 10um 100 x 2.0mm
1246F184PS100	ProntoSIL 120-10-C18AQ 10um 125 x 4.6mm
1204F184PS100	ProntoSIL 120-10-C18AQ 10um 125 x 4.0mm
1203F184PS100	ProntoSIL 120-10-C18AQ 10um 125 x 3.0mm
1202F184PS100	ProntoSIL 120-10-C18AQ 10um 125 x 2.0mm
1546F184PS100	ProntoSIL 120-10-C18AQ 10um 150 x 4.6mm
1504F184PS100	ProntoSIL 120-10-C18AQ 10um 150 x 4.0mm
1503F184PS100	ProntoSIL 120-10-C18AQ 10um 150 x 3.0mm
1502F184PS100	ProntoSIL 120-10-C18AQ 10um 150 x 2.0mm
2046F184PS100	ProntoSIL 120-10-C18AQ 10um 200 x 4.6mm
2004F184PS100	ProntoSIL 120-10-C18AQ 10um 200 x 4.0mm
2003F184PS100	ProntoSIL 120-10-C18AQ 10um 200 x 3.0mm
2002F184PS100	ProntoSIL 120-10-C18AQ 10um 200 x 2.0mm
2546F184PS100	ProntoSIL 120-10-C18AQ 10um 250 x 4.6mm
2504F184PS100	ProntoSIL 120-10-C18AQ 10um 250 x 4.0mm
2503F184PS100	ProntoSIL 120-10-C18AQ 10um 250 x 3.0mm
2502F184PS100	ProntoSIL 120-10-C18AQ 10um 250 x 2.0mm
3046F184PS100	ProntoSIL 120-10-C18AQ 10um 300 x 4.6mm
3004F184PS100	ProntoSIL 120-10-C18AQ 10um 300 x 4.0mm
3003F184PS100	ProntoSIL 120-10-C18AQ 10um 300 x 3.0mm
3002F184PS100	ProntoSIL 120-10-C18AQ 10um 300 x 2.0mm
10P4F184PS100	ProntoSIL 120-10-C18AQ PEEK column 10um 100 x 4.0mm
12P4F184PS100	ProntoSIL 120-10-C18AQ PEEK column 10um 125 x 4.0mm
15P4F184PS100	ProntoSIL 120-10-C18AQ PEEK column 10um 150 x 4.0mm
20P4F184PS100	ProntoSIL 120-10-C18AQ PEEK column 10um 200 x 4.0mm
25P4F184PS100	ProntoSIL 120-10-C18AQ PEEK column 10um 250 x 4.0mm
30P4F184PS100	ProntoSIL 120-10-C18AQ PEEK column 10um 300 x 4.0mm
0146F183PS050	ProntoSIL 120-5-C18AQ plus Guard 5um 14 x 4.6mm

PART NUMBER	DESCRIPTION
0104F183PS050	ProntoSIL 120-5-C18AQ plus Guard 5um 14 x 4.0mm
1046F183PS050	ProntoSIL 120-5-C18AQ plus 5um 100 x 4.6mm
1004F183PS050	ProntoSIL 120-5-C18AQ plus 5um 100 x 4.0mm
1003F183PS050	ProntoSIL 120-5-C18AQ plus 5um 100 x 3.0mm
1002F183PS050	ProntoSIL 120-5-C18AQ plus 5um 100 x 2.0mm
1246F183PS050	ProntoSIL 120-5-C18AQ plus 5um 125 x 4.6mm
1204F183PS050	ProntoSIL 120-5-C18AQ plus 5um 125 x 4.0mm
1203F183PS050	ProntoSIL 120-5-C18AQ plus 5um 125 x 3.0mm
1202F183PS050	ProntoSIL 120-5-C18AQ plus 5um 125 x 2.0mm
1546F183PS050	ProntoSIL 120-5-C18AQ plus 5um 150 x 4.6mm
1504F183PS050	ProntoSIL 120-5-C18AQ plus 5um 150 x 4.0mm
1503F183PS050	ProntoSIL 120-5-C18AQ plus 5um 150 x 3.0mm
1502F183PS050	ProntoSIL 120-5-C18AQ plus 5um 150 x 2.0mm
2046F183PS050	ProntoSIL 120-5-C18AQ plus 5um 200 x 4.6mm
2004F183PS050	ProntoSIL 120-5-C18AQ plus 5um 200 x 4.0mm
2003F183PS050	ProntoSIL 120-5-C18AQ plus 5um 200 x 3.0mm
2002F183PS050	ProntoSIL 120-5-C18AQ plus 5um 200 x 2.0mm
2546F183PS050	ProntoSIL 120-5-C18AQ plus 5um 250 x 4.6mm
2504F183PS050	ProntoSIL 120-5-C18AQ plus 5um 250 x 4.0mm
2503F183PS050	ProntoSIL 120-5-C18AQ plus 5um 250 x 3.0mm
2502F183PS050	ProntoSIL 120-5-C18AQ plus 5um 250 x 2.0mm
3046F183PS050	ProntoSIL 120-5-C18AQ plus 5um 300 x 4.6mm
3004F183PS050	ProntoSIL 120-5-C18AQ plus 5um 300 x 4.0mm
3003F183PS050	ProntoSIL 120-5-C18AQ plus 5um 300 x 3.0mm
3002F183PS050	ProntoSIL 120-5-C18AQ plus 5um 300 x 2.0mm
10P4F183PS050	ProntoSIL 120-5-C18AQ plus PEEK column 5um 100 x 4.0mm
12P4F183PS050	ProntoSIL 120-5-C18AQ plus PEEK column 5um 125 x 4.0mm
15P4F183PS050	ProntoSIL 120-5-C18AQ plus PEEK column 5um 150 x 4.0mm
20P4F183PS050	ProntoSIL 120-5-C18AQ plus PEEK column 5um 200 x 4.0mm
25P4F183PS050	ProntoSIL 120-5-C18AQ plus PEEK column 5um 250 x 4.0mm
30P4F183PS050	ProntoSIL 120-5-C18AQ plus PEEK column 5um 300 x 4.0mm
0146H184PS030	ProntoSIL 200-3-C18AQ Guard 3um 14 x 4.6mm
0104H184PS030	ProntoSIL 200-3-C18AQ Guard 3um 14 x 4.0mm
1046H184PS030	ProntoSIL 200-3-C18AQ 3um 100 x 4.6mm
1004H184PS030	ProntoSIL 200-3-C18AQ 3um 100 x 4.0mm
1003H184PS030	ProntoSIL 200-3-C18AQ 3um 100 x 3.0mm
1002H184PS030	ProntoSIL 200-3-C18AQ 3um 100 x 2.0mm
1246H184PS030	ProntoSIL 200-3-C18AQ 3um 125 x 4.6mm
1204H184PS030	ProntoSIL 200-3-C18AQ 3um 125 x 4.0mm
1203H184PS030	ProntoSIL 200-3-C18AQ 3um 125 x 3.0mm
1202H184PS030	ProntoSIL 200-3-C18AQ 3um 125 x 2.0mm
1546H184PS030	ProntoSIL 200-3-C18AQ 3um 150 x 4.6mm
1504H184PS030	ProntoSIL 200-3-C18AQ 3um 150 x 4.0mm



## ProntoSIL C18 AQ Columns

PART NUMBER	DESCRIPTION
1503H184PS030	ProntoSIL 200-3-C18AQ 3um 150 x 3.0mm
1502H184PS030	ProntoSIL 200-3-C18AQ 3um 150 x 2.0mm
2046H184PS030	ProntoSIL 200-3-C18AQ 3um 200 x 4.6mm
2004H184PS030	ProntoSIL 200-3-C18AQ 3um 200 x 4.0mm
2003H184PS030	ProntoSIL 200-3-C18AQ 3um 200 x 3.0mm
2002H184PS030	ProntoSIL 200-3-C18AQ 3um 200 x 2.0mm
2546H184PS030	ProntoSIL 200-3-C18AQ 3um 250 x 4.6mm
2504H184PS030	ProntoSIL 200-3-C18AQ 3um 250 x 4.0mm
2503H184PS030	ProntoSIL 200-3-C18AQ 3um 250 x 3.0mm
2502H184PS030	ProntoSIL 200-3-C18AQ 3um 250 x 2.0mm
10P4H184PS030	ProntoSIL 200-3-C18AQ PEEK column 3um 100 x 4.0mm
12P4H184PS030	ProntoSIL 200-3-C18AQ PEEK column 3um 125 x 4.0mm
15P4H184PS030	ProntoSIL 200-3-C18AQ PEEK column 3um 150 x 4.0mm
20P4H184PS030	ProntoSIL 200-3-C18AQ PEEK column 3um 200 x 4.0mm
25P4H184PS030	ProntoSIL 200-3-C18AQ PEEK column 3um 250 x 4.0mm
0146H184PS050	ProntoSIL 200-5-C18AQ Guard 5um 14 x 4.6mm
0104H184PS050	ProntoSIL 200-5-C18AQ Guard 5um 14 x 4.0mm
1046H184PS050	ProntoSIL 200-5-C18AQ 5um 100 x 4.6mm
1004H184PS050	ProntoSIL 200-5-C18AQ 5um 100 x 4.0mm
1003H184PS050	ProntoSIL 200-5-C18AQ 5um 100 x 3.0mm
1002H184PS050	ProntoSIL 200-5-C18AQ 5um 100 x 2.0mm
1246H184PS050	ProntoSIL 200-5-C18AQ 5um 125 x 4.6mm
1204H184PS050	ProntoSIL 200-5-C18AQ 5um 125 x 4.0mm
1203H184PS050	ProntoSIL 200-5-C18AQ 5um 125 x 3.0mm
1202H184PS050	ProntoSIL 200-5-C18AQ 5um 125 x 2.0mm
1546H184PS050	ProntoSIL 200-5-C18AQ 5um 150 x 4.6mm
1504H184PS050	ProntoSIL 200-5-C18AQ 5um 150 x 4.0mm
1503H184PS050	ProntoSIL 200-5-C18AQ 5um 150 x 3.0mm
1502H184PS050	ProntoSIL 200-5-C18AQ 5um 150 x 2.0mm
2046H184PS050	ProntoSIL 200-5-C18AQ 5um 200 x 4.6mm
2004H184PS050	ProntoSIL 200-5-C18AQ 5um 200 x 4.0mm
2003H184PS050	ProntoSIL 200-5-C18AQ 5um 200 x 3.0mm
2002H184PS050	ProntoSIL 200-5-C18AQ 5um 200 x 2.0mm
2546H184PS050	ProntoSIL 200-5-C18AQ 5um 250 x 4.6mm
2504H184PS050	ProntoSIL 200-5-C18AQ 5um 250 x 4.0mm
2503H184PS050	ProntoSIL 200-5-C18AQ 5um 250 x 3.0mm
2502H184PS050	ProntoSIL 200-5-C18AQ 5um 250 x 2.0mm
3046H184PS050	ProntoSIL 200-5-C18AQ 5um 300 x 4.6mm
3004H184PS050	ProntoSIL 200-5-C18AQ 5um 300 x 4.0mm
3003H184PS050	ProntoSIL 200-5-C18AQ 5um 300 x 3.0mm
3002H184PS050	ProntoSIL 200-5-C18AQ 5um 300 x 2.0mm
10P4H184PS050	ProntoSIL 200-5-C18AQ PEEK column 5um 100 x 4.0mm
12P4H184PS050	ProntoSIL 200-5-C18AQ PEEK column 5um 125 x 4.0mm

PART NUMBER	DESCRIPTION
15P4H184PS050	ProntoSIL 200-5-C18AQ PEEK column 5um 150 x 4.0mm
20P4H184PS050	ProntoSIL 200-5-C18AQ PEEK column 5um 200 x 4.0mm
25P4H184PS050	ProntoSIL 200-5-C18AQ PEEK column 5um 250 x 4.0mm
30P4H184PS050	ProntoSIL 200-5-C18AQ PEEK column 5um 300 x 4.0mm

## ProntoSIL Enviro C18 Columns(5um, 6um, 7um)

PART NUMBER	DESCRIPTION
1204E440EV070	Enviro-PHE 100-7-C18 7um 125 x 4.0mm
1203E440EV070	Enviro-PHE 100-7-C18 7um 125 x 3.1mm
1202E440EV070	Enviro-PHE 100-7-C18 7um 125 x 2.1mm
2504E440EV070	Enviro-PHE 100-7-C18 7um 250 x 4.0mm
2503E440EV070	Enviro-PHE 100-7-C18 7um 250 x 3.1mm
2502E440EV070	Enviro-PHE 100-7-C18 7um 250 x 2.1mm
2504E430EV050	Enviro-PES 100-5-C18 5um 250 x 4.0mm
2503E430EV050	Enviro-PES 100-5-C18 5um 250 x 3.1mm
2502E430EV050	Enviro-PES 100-5-C18 5um 250 x 2.1mm
1204E420EV060	Enviro-PAH 100-6-C18 6um 125 x 4.0mm
1203E420EV060	Enviro-PAH 100-6-C18 6um 125 x 3.1mm
1202E420EV060	Enviro-PAH 100-6-C18 6um 125 x 2.1mm
2504E420EV060	Enviro-PAH 100-6-C18 6um 250 x 4.0mm
2503E420EV060	Enviro-PAH 100-6-C18 6um 250 x 3.1mm
2502E420EV060	Enviro-PAH 100-6-C18 6um 250 x 2.1mm
2004E460EV060	Enviro-EXP 100-6-C18 6um 200 x 4.0mm
2003E460EV060	Enviro-EXP 100-6-C18 6um 200 x 3.0mm
2002E460EV060	Enviro-EXP 100-6-C18 6um 200 x 2.0mm
2504E460EV060	Enviro-EXP 100-6-C18 6um 250 x 4.0mm
2503E460EV060	Enviro-EXP 100-6-C18 6um 250 x 3.0mm
2502E460EV060	Enviro-EXP 100-6-C18 6um 250 x 2.0mm
2546C450PS050	Enviro-PTL 60-5-5um 250 x 4.6mm

## ProntoSIL Hypersorb ODS Columns(3um, 5um)

### ProntoSIL Hypersorb ODS

PART NUMBER	DESCRIPTION
1046F180PY030	ProntoSIL Hypersorb ODS 3um 100 x 4.6mm
1004F180PY030	ProntoSIL Hypersorb ODS 3um 100 x 4.0mm
1003F180PY030	ProntoSIL Hypersorb ODS 3um 100 x 3.0mm
1002F180PY030	ProntoSIL Hypersorb ODS 3um 100 x 2.0mm
1246F180PY030	ProntoSIL Hypersorb ODS 3um 125 x 4.6mm
1204F180PY030	ProntoSIL Hypersorb ODS 3um 125 x 4.0mm
1203F180PY030	ProntoSIL Hypersorb ODS 3um 125 x 3.0mm
1202F180PY030	ProntoSIL Hypersorb ODS 3um 125 x 2.0mm
1546F180PY030	ProntoSIL Hypersorb ODS 3um 150 x 4.6mm
1504F180PY030	ProntoSIL Hypersorb ODS 3um 150 x 4.0mm
1503F180PY030	ProntoSIL Hypersorb ODS 3um 150 x 3.0mm
1502F180PY030	ProntoSIL Hypersorb ODS 3um 150 x 2.0mm
2046F180PY030	ProntoSIL Hypersorb ODS 3um 200 x 4.6mm
2004F180PY030	ProntoSIL Hypersorb ODS 3um 200 x 4.0mm
2003F180PY030	ProntoSIL Hypersorb ODS 3um 200 x 3.0mm
2002F180PY030	ProntoSIL Hypersorb ODS 3um 200 x 2.0mm
2546F180PY030	ProntoSIL Hypersorb ODS 3um 250 x 4.6mm
2504F180PY030	ProntoSIL Hypersorb ODS 3um 250 x 4.0mm
2503F180PY030	ProntoSIL Hypersorb ODS 3um 250 x 3.0mm
2502F180PY030	ProntoSIL Hypersorb ODS 3um 250 x 2.0mm
1046F180PY050	ProntoSIL Hypersorb ODS 5um 100 x 4.6mm
1004F180PY050	ProntoSIL Hypersorb ODS 5um 100 x 4.0mm
1003F180PY050	ProntoSIL Hypersorb ODS 5um 100 x 3.0mm
1002F180PY050	ProntoSIL Hypersorb ODS 5um 100 x 2.0mm
1246F180PY050	ProntoSIL Hypersorb ODS 5um 125 x 4.6mm
1204F180PY050	ProntoSIL Hypersorb ODS 5um 125 x 4.0mm
1203F180PY050	ProntoSIL Hypersorb ODS 5um 125 x 3.0mm
1202F180PY050	ProntoSIL Hypersorb ODS 5um 125 x 2.0mm
1546F180PY050	ProntoSIL Hypersorb ODS 5um 150 x 4.6mm
1504F180PY050	ProntoSIL Hypersorb ODS 5um 150 x 4.0mm
1503F180PY050	ProntoSIL Hypersorb ODS 5um 150 x 3.0mm
1502F180PY050	ProntoSIL Hypersorb ODS 5um 150 x 2.0mm
2046F180PY050	ProntoSIL Hypersorb ODS 5um 200 x 4.6mm
2004F180PY050	ProntoSIL Hypersorb ODS 5um 200 x 4.0mm
2003F180PY050	ProntoSIL Hypersorb ODS 5um 200 x 3.0mm
2002F180PY050	ProntoSIL Hypersorb ODS 5um 200 x 2.0mm
2546F180PY050	ProntoSIL Hypersorb ODS 5um 250 x 4.6mm
2504F180PY050	ProntoSIL Hypersorb ODS 5um 250 x 4.0mm

PART NUMBER	DESCRIPTION
2503F180PY050	ProntoSIL Hypersorb ODS 5um 250 x 3.0mm
2502F180PY050	ProntoSIL Hypersorb ODS 5um 250 x 2.0mm
3046F180PY050	ProntoSIL Hypersorb ODS 5um 300 x 4.6mm
3004F180PY050	ProntoSIL Hypersorb ODS 5um 300 x 4.0mm
3003F180PY050	ProntoSIL Hypersorb ODS 5um 300 x 3.0mm
3002F180PY050	ProntoSIL Hypersorb ODS 5um 300 x 2.0mm

## ProntoSIL Spheribond ODS Columns(3um, 5um, 10um)

PART NUMBER	DESCRIPTION
1046D181SB030	ProntoSIL Spheribond ODS2 3um 100 x 4.6mm
1004D181SB030	ProntoSIL Spheribond ODS2 3um 100 x 4.0mm
1003D181SB030	ProntoSIL Spheribond ODS2 3um 100 x 3.0mm
1002D181SB030	ProntoSIL Spheribond ODS2 3um 100 x 2.0mm
1246D181SB030	ProntoSIL Spheribond ODS2 3um 125 x 4.6mm
1204D181SB030	ProntoSIL Spheribond ODS2 3um 125 x 4.0mm
1203D181SB030	ProntoSIL Spheribond ODS2 3um 125 x 3.0mm
1202D181SB030	ProntoSIL Spheribond ODS2 3um 125 x 2.0mm
1546D181SB030	ProntoSIL Spheribond ODS2 3um 150 x 4.6mm
1504D181SB030	ProntoSIL Spheribond ODS2 3um 150 x 4.0mm
1503D181SB030	ProntoSIL Spheribond ODS2 3um 150 x 3.0mm
1502D181SB030	ProntoSIL Spheribond ODS2 3um 150 x 2.0mm
2046D181SB030	ProntoSIL Spheribond ODS2 3um 200 x 4.6mm
2004D181SB030	ProntoSIL Spheribond ODS2 3um 200 x 4.0mm
2003D181SB030	ProntoSIL Spheribond ODS2 3um 200 x 3.0mm
2002D181SB030	ProntoSIL Spheribond ODS2 3um 200 x 2.0mm
2546D181SB030	ProntoSIL Spheribond ODS2 3um 250 x 4.6mm
2504D181SB030	ProntoSIL Spheribond ODS2 3um 250 x 4.0mm
2503D181SB030	ProntoSIL Spheribond ODS2 3um 250 x 3.0mm
2502D181SB030	ProntoSIL Spheribond ODS2 3um 250 x 2.0mm
10P4D181SB030	ProntoSIL Spheribond ODS2 PEEK Columns 3um 100 x 4.0mm
12P4D181SB030	ProntoSIL Spheribond ODS2 PEEK Columns 3um 125 x 4.0mm
15P4D181SB030	ProntoSIL Spheribond ODS2 PEEK Columns 3um 150 x 4.0mm
20P4D181SB030	ProntoSIL Spheribond ODS2 PEEK Columns 3um 200 x 4.0mm
25P4D181SB030	ProntoSIL Spheribond ODS2 PEEK Columns 3um 250 x 4.0mm
30P4D181SB030	ProntoSIL Spheribond ODS2 PEEK Columns 3um 300 x 4.0mm
1046D181SB050	ProntoSIL Spheribond ODS2 5um 100 x 4.6mm
1004D181SB050	ProntoSIL Spheribond ODS2 5um 100 x 4.0mm
1003D181SB050	ProntoSIL Spheribond ODS2 5um 100 x 3.0mm
1002D181SB050	ProntoSIL Spheribond ODS2 5um 100 x 2.0mm
1246D181SB050	ProntoSIL Spheribond ODS2 5um 125 x 4.6mm
1204D181SB050	ProntoSIL Spheribond ODS2 5um 125 x 4.0mm
1203D181SB050	ProntoSIL Spheribond ODS2 5um 125 x 3.0mm
1202D181SB050	ProntoSIL Spheribond ODS2 5um 125 x 2.0mm
1546D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 4.6mm
1504D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 4.0mm
1503D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 3.0mm
1502D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 2.0mm
2046D181SB050	ProntoSIL Spheribond ODS2 5um 200 x 4.6mm
2004D181SB050	ProntoSIL Spheribond ODS2 5um 200 x 4.0mm

PART NUMBER	DESCRIPTION
1504D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 4.0mm
1503D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 3.0mm
1502D181SB050	ProntoSIL Spheribond ODS2 5um 150 x 2.0mm
2046D181SB050	ProntoSIL Spheribond ODS2 5um 200 x 4.6mm
2004D181SB050	ProntoSIL Spheribond ODS2 5um 200 x 4.0mm
2003D181SB050	ProntoSIL Spheribond ODS2 5um 200 x 3.0mm
2002D181SB050	ProntoSIL Spheribond ODS2 5um 200 x 2.0mm
2546D181SB050	ProntoSIL Spheribond ODS2 5um 250 x 4.6mm
2504D181SB050	ProntoSIL Spheribond ODS2 5um 250 x 4.0mm
2503D181SB050	ProntoSIL Spheribond ODS2 5um 250 x 3.0mm
2502D181SB050	ProntoSIL Spheribond ODS2 5um 250 x 2.0mm
3046D181SB050	ProntoSIL Spheribond ODS2 5um 300 x 4.6mm
3004D181SB050	ProntoSIL Spheribond ODS2 5um 300 x 4.0mm
3003D181SB050	ProntoSIL Spheribond ODS2 5um 300 x 3.0mm
3002D181SB050	ProntoSIL Spheribond ODS2 5um 300 x 2.0mm
10P4D181SB050	ProntoSIL Spheribond ODS2 PEEK Columns 5um 100 x 4.0mm
12P4D181SB050	ProntoSIL Spheribond ODS2 PEEK Columns 5um 125 x 4.0mm
15P4D181SB050	ProntoSIL Spheribond ODS2 PEEK Columns 5um 150 x 4.0mm
20P4D181SB050	ProntoSIL Spheribond ODS2 PEEK Columns 5um 200 x 4.0mm
25P4D181SB050	ProntoSIL Spheribond ODS2 PEEK Columns 5um 250 x 4.0mm
30P4D181SB050	ProntoSIL Spheribond ODS2 PEEK Columns 5um 300 x 4.0mm
1046D181SB100	ProntoSIL Spheribond ODS2 10um 100 x 4.6mm
1004D181SB100	ProntoSIL Spheribond ODS2 10um 100 x 4.0mm
1003D181SB100	ProntoSIL Spheribond ODS2 10um 100 x 3.0mm
1002D181SB100	ProntoSIL Spheribond ODS2 10um 100 x 2.0mm
1246D181SB100	ProntoSIL Spheribond ODS2 10um 125 x 4.6mm
1204D181SB100	ProntoSIL Spheribond ODS2 10um 125 x 4.0mm
1203D181SB100	ProntoSIL Spheribond ODS2 10um 125 x 3.0mm
1202D181SB100	ProntoSIL Spheribond ODS2 10um 125 x 2.0mm
1546D181SB100	ProntoSIL Spheribond ODS2 10um 150 x 4.6mm
1504D181SB100	ProntoSIL Spheribond ODS2 10um 150 x 4.0mm
1503D181SB100	ProntoSIL Spheribond ODS2 10um 150 x 3.0mm
1502D181SB100	ProntoSIL Spheribond ODS2 10um 150 x 2.0mm
2046D181SB100	ProntoSIL Spheribond ODS2 10um 200 x 4.6mm
2004D181SB100	ProntoSIL Spheribond ODS2 10um 200 x 4.0mm

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
2003D181SB100	ProntoSIL Spheribond ODS2 10um 200 x 3.0mm
2002D181SB100	ProntoSIL Spheribond ODS2 10um 200 x 2.0mm
2546D181SB100	ProntoSIL Spheribond ODS2 10um 250 x 4.6mm
2504D181SB100	ProntoSIL Spheribond ODS2 10um 250 x 4.0mm
2503D181SB100	ProntoSIL Spheribond ODS2 10um 250 x 3.0mm
2502D181SB100	ProntoSIL Spheribond ODS2 10um 250 x 2.0mm
3046D181SB100	ProntoSIL Spheribond ODS2 10um 300 x 4.6mm
3004D181SB100	ProntoSIL Spheribond ODS2 10um 300 x 4.0mm
3003D181SB100	ProntoSIL Spheribond ODS2 10um 300 x 3.0mm
3002D181SB100	ProntoSIL Spheribond ODS2 10um 300 x 2.0mm
10P4D181SB100	ProntoSIL Spheribond ODS2 PEEK Columns 10um 100 x 4.0mm
12P4D181SB100	ProntoSIL Spheri bond ODS2 PEEK Columns 10um 125 x 4.0mm
15P4D181SB100	ProntoSIL Spheribond ODS2 PEEK Columns 10um 150 x 4.0mm
20P4D181SB100	ProntoSIL Spheribond ODS2 PEEK Columns 10um 200 x 4.0mm
25P4D181SB100	ProntoSIL Spheribond ODS2 PEEK Columns 10um 250 x 4.0mm
30P4D181SB100	ProntoSIL Spheribond ODS2 PEEK Columns 10um 300 x 4.0mm, 5/pk (Cartridge holder required)

## ProntoSIL Eurobond C18 Columns(5um)

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1204F181PS050	ProntoSIL 120-5-Eurobond C18 5um 125 x 4.0mm
2504F181PS050	ProntoSIL 120-5-Eurobond C18 5um 250 x 4.0mm

## ProntoSIL C30 Columns(3um, 5um, 10um)

PART NUMBER	DESCRIPTION
1046F300PS030	ProntoSIL 120-3-C30 3um 100 x 4.6mm
1546F300PS030	ProntoSIL 120-3-C30 3um 150 x 4.6mm
2546F300PS030	ProntoSIL 120-3-C30 3um 250 x 4.6mm
2502F300PS030	ProntoSIL 120-3-C30 3um 250 x 2.0mm
2503F300PS030	ProntoSIL 120-3-C30 3um 250 x 3.0mm
2504F300PS030	ProntoSIL 120-3-C30 3um 250 x 4.0mm
1046H300PS030	ProntoSIL 200-3-C30 3um 100 x 4.6mm
1546H300PS030	ProntoSIL 200-3-C30 3um 150 x 4.6mm
2546H300PS030	ProntoSIL 200-3-C30 3um 250 x 4.6mm
2502H300PS030	ProntoSIL 200-3-C30 3um 250 x 2.0mm
2503H300PS030	ProntoSIL 200-3-C30 3um 250 x 3.0mm
2504H300PS030	ProntoSIL 200-3-C30 3um 250 x 4.0mm
1046H300PS050	ProntoSIL 200-5-C30 5um 100 x 4.6mm
1546H300PS050	ProntoSIL 200-5-C30 5um 150 x 4.6mm
2546H300PS050	ProntoSIL 200-5-C30 5um 250 x 4.6mm
2502H300PS050	ProntoSIL 200-5-C30 5um 250 x 2.0mm
2503H300PS050	ProntoSIL 200-5-C30 5um 250 x 3.0mm
2504H300PS050	ProntoSIL 200-5-C30 5um 250 x 4.0mm
1046H300PS100	ProntoSIL 200-10-C30 10um 100 x 4.6mm
1546H300PS100	ProntoSIL 200-10-C30 10um 150 x 4.6mm
2546H300PS100	ProntoSIL 200-10-C30 10um 250 x 4.6mm
2502H300PS100	ProntoSIL 200-10-C30 10um 250 x 2.0mm
2503H300PS100	ProntoSIL 200-10-C30 10um 250 x 3.0mm
2504H300PS100	ProntoSIL 200-10-C30 10um 250 x 4.0mm
1046K300PS030	ProntoSIL 300-3-C30 3um 100 x 4.6mm
1546K300PS030	ProntoSIL 300-3-C30 3um 150 x 4.6mm
2546K300PS030	ProntoSIL 300-3-C30 3um 250 x 4.6mm
2502K300PS030	ProntoSIL 300-3-C30 3um 250 x 2.0mm
2503K300PS030	ProntoSIL 300-3-C30 3um 250 x 3.0mm
2504K300PS030	ProntoSIL 300-3-C30 3um 250 x 4.0mm
1046K300PS050	ProntoSIL 300-5-C30 5um 100 x 4.6mm
1546K300PS050	ProntoSIL 300-5-C30 5um 150 x 4.6mm
2546K300PS050	ProntoSIL 300-5-C30 5um 250 x 4.6mm
2502K300PS050	ProntoSIL 300-5-C30 5um 250 x 2.0mm
2503K300PS050	ProntoSIL 300-5-C30 5um 250 x 3.0mm
2504K300PS050	ProntoSIL 300-5-C30 5um 250 x 4.0mm
1046K301PS030	ProntoSIL 300-3-C30 EC 3um 100 x 4.6mm
1546K301PS030	ProntoSIL 300-3-C30 EC 3um 150 x 4.6mm
2546K301PS030	ProntoSIL 300-3-C30 EC 3um 250 x 4.6mm
2502K301PS030	ProntoSIL 300-3-C30 EC 3um 250 x 2.0mm

PART NUMBER	DESCRIPTION
2503K301PS030	ProntoSIL 300-3-C30 EC 3um 250 x 3.0mm
2504K301PS030	ProntoSIL 300-3-C30 EC 3um 250 x 4.0mm
1046K301PS050	ProntoSIL 300-5-C30 EC 5um 100 x 4.6mm
1546K301PS050	ProntoSIL 300-5-C30 EC 5um 150 x 4.6mm
2546K301PS050	ProntoSIL 300-5-C30 EC 5um 250 x 4.6mm
2502K301PS050	ProntoSIL 300-5-C30 EC 5um 250 x 2.0mm
2503K301PS050	ProntoSIL 300-5-C30 EC 5um 250 x 3.0mm
2504K301PS050	ProntoSIL 300-5-C30 EC 5um 250 x 4.0mm

# ProntoSIL AMINO Columns(3um, 5um, 10um)

## ProntoSIL AMINO Columns

PART NUMBER	DESCRIPTION
0146F190PS030	ProntoSIL 120-3-AMINO Guard 3um 14 x 4.6mm
0104F190PS030	ProntoSIL 120-3-AMINO Guard 3um 14 x 4.0mm
1046F190PS030	ProntoSIL 120-3-AMINO 3um 100 x 4.6mm
1004F190PS030	ProntoSIL 120-3-AMINO 3um 100 x 4.6mm
1003F190PS030	ProntoSIL 120-3-AMINO 3um 100 x 3.0mm
1002F190PS030	ProntoSIL 120-3-AMINO 3um 100 x 2.0mm
1246F190PS030	ProntoSIL 120-3-AMINO 3um 125 x 4.6mm
1204F190PS030	ProntoSIL 120-3-AMINO 3um 125 x 4.0mm
1203F190PS030	ProntoSIL 120-3-AMINO 3um 125 x 3.0mm
1202F190PS030	ProntoSIL 120-3-AMINO 3um 125 x 2.0mm
1546F190PS030	ProntoSIL 120-3-AMINO 3um 150 x 4.6mm
1504F190PS030	ProntoSIL 120-3-AMINO 3um 150 x 4.0mm
1503F190PS030	ProntoSIL 120-3-AMINO 3um 150 x 3.0mm
1502F190PS030	ProntoSIL 120-3-AMINO 3um 150 x 2.0mm
2046F190PS030	ProntoSIL 120-3-AMINO 3um 200 x 4.6mm
2004F190PS030	ProntoSIL 120-3-AMINO 3um 200 x 4.0mm
2003F190PS030	ProntoSIL 120-3-AMINO 3um 200 x 3.0mm
2002F190PS030	ProntoSIL 120-3-AMINO 3um 200 x 2.0mm
2546F190PS030	ProntoSIL 120-3-AMINO 3um 250 x 4.6mm
2504F190PS030	ProntoSIL 120-3-AMINO 3um 250 x 4.0mm
2503F190PS030	ProntoSIL 120-3-AMINO 3um 250 x 3.0mm
2502F190PS030	ProntoSIL 120-3-AMINO 3um 250 x 2.0mm
10P4F190PS030	ProntoSIL 120-3-AMINO PEEK column 3um 100 x 4.0mm
12P4F190PS030	ProntoSIL 120-3-AMINO PEEK column 3um 125 x 4.0mm
15P4F190PS030	ProntoSIL 120-3-AMINO PEEK column 3um 150 x 4.0mm
20P4F190PS030	ProntoSIL 120-3-AMINO PEEK column 3um 200 x 4.0mm
25P4F190PS030	ProntoSIL 120-3-AMINO PEEK column 3um 250 x 4.0mm
0146F190PS050	ProntoSIL 120-5-AMINO Guard 5um 14 x 4.6mm
0104F190PS050	ProntoSIL 120-5-AMINO Guard 5um 14 x 4.0mm
1046F190PS050	ProntoSIL 120-5-AMINO 5um 100 x 4.6mm
1004F190PS050	ProntoSIL 120-5-AMINO 5um 100 x 4.0mm
1003F190PS050	ProntoSIL 120-5-AMINO 5um 100 x 3.0mm
1002F190PS050	ProntoSIL 120-5-AMINO 5um 100 x 2.0mm
1246F190PS050	ProntoSIL 120-5-AMINO 5um 125 x 4.6mm
1204F190PS050	ProntoSIL 120-5-AMINO 5um 125 x 4.0mm
1203F190PS050	ProntoSIL 120-5-AMINO 5um 125 x 3.0mm
1202F190PS050	ProntoSIL 120-5-AMINO 5um 125 x 2.0mm
1546F190PS050	ProntoSIL 120-5-AMINO 5um 150 x 4.6mm
1504F190PS050	ProntoSIL 120-5-AMINO 5um 150 x 4.0mm
1203F190PS050	ProntoSIL 120-5-AMINO 5um 125 x 3.0mm

PART NUMBER	DESCRIPTION
1202F190PS050	ProntoSIL 120-5-AMINO 5um 125 x 2.0mm
1546F190PS050	ProntoSIL 120-5-AMINO 5um 150 x 4.6mm
1504F190PS050	ProntoSIL 120-5-AMINO 5um 150 x 4.0mm
1503F190PS050	ProntoSIL 120-5-AMINO 5um 150 x 3.0mm
1502F190PS050	ProntoSIL 120-5-AMINO 5um 150 x 2.0mm
2046F190PS050	ProntoSIL 120-5-AMINO 5um 200 x 4.6mm
2004F190PS050	ProntoSIL 120-5-AMINO 5um 200 x 4.0mm
2003F190PS050	ProntoSIL 120-5-AMINO 5um 200 x 3.0mm
2002F190PS050	ProntoSIL 120-5-AMINO 5um 200 x 2.0mm
2546F190PS050	ProntoSIL 120-5-AMINO 5um 250 x 4.6mm
2504F190PS050	ProntoSIL 120-5-AMINO 5um 250 x 4.0mm
2503F190PS050	ProntoSIL 120-5-AMINO 5um 250 x 3.0mm
2502F190PS050	ProntoSIL 120-5-AMINO 5um 250 x 2.0mm
3046F190PS050	ProntoSIL 120-5-AMINO 5um 300 x 4.6mm
3004F190PS050	ProntoSIL 120-5-AMINO 5um 300 x 4.0mm
3003F190PS050	ProntoSIL 120-5-AMINO 5um 300 x 3.0mm
3002F190PS050	ProntoSIL 120-5-AMINO 5um 300 x 2.0mm
10P4F190PS050	ProntoSIL 120-5-AMINO PEEK column 5um 100 x 4.0mm
12P4F190PS050	ProntoSIL 120-5-AMINO PEEK column 5um 125 x 4.0mm
15P4F190PS050	ProntoSIL 120-5-AMINO PEEK column 5um 150 x 4.0mm
20P4F190PS050	ProntoSIL 120-5-AMINO PEEK column 5um 200 x 4.0mm
25P4F190PS050	ProntoSIL 120-5-AMINO PEEK column 5um 250 x 4.0mm
30P4F190PS050	ProntoSIL 120-5-AMINO PEEK column 5um 300 x 4.0mm
0146F190PS100	ProntoSIL 120-10-AMINO Guard 10um 14 x 4.6mm
0104F190PS100	ProntoSIL 120-10-AMINO Guard 10um 14 x 4.0mm
1046F190PS100	ProntoSIL 120-10-AMINO 10um 100 x 4.6mm
1004F190PS100	ProntoSIL 120-10-AMINO 10um 100 x 4.0mm
1003F190PS100	ProntoSIL 120-10-AMINO 10um 100 x 3.0mm
1002F190PS100	ProntoSIL 120-10-AMINO 10um 100 x 2.0mm
1246F190PS100	ProntoSIL 120-10-AMINO 10um 125 x 4.6mm
1204F190PS100	ProntoSIL 120-10-AMINO 10um 125 x 4.0mm
1203F190PS100	ProntoSIL 120-10-AMINO 10um 125 x 3.0mm
1202F190PS100	ProntoSIL 120-10-AMINO 10um 125 x 2.0mm
1546F190PS100	ProntoSIL 120-10-AMINO 10um 150 x 4.6mm
1504F190PS100	ProntoSIL 120-10-AMINO 10um 150 x 4.0mm
1503F190PS100	ProntoSIL 120-10-AMINO 10um 150 x 3.0mm





# ProntoSIL Silica Columns(3um, 5um)

## ProntoSIL Silica Columns

PART NUMBER	DESCRIPTION
0146C000PS030	ProntoSIL 60-3-Si Guard 3um 14 x 4.6mm
0104C000PS030	ProntoSIL 60-3-Si Guard 3um 14 x 4.0mm
1046C000PS030	ProntoSIL 60-3-Si 3um 100 x 4.6mm
1004C000PS030	ProntoSIL 60-3-Si 3um 100 x 4.6mm
1003C000PS030	ProntoSIL 60-3-Si 3um 100 x 3.0mm
1002C000PS030	ProntoSIL 60-3-Si 3um 100 x 2.0mm
1246C000PS030	ProntoSIL 60-3-Si 3um 125 x 4.6mm
1204C000PS030	ProntoSIL 60-3-Si 3um 125 x 4.0mm
1203C000PS030	ProntoSIL 60-3-Si 3um 125 x 3.0mm
1202C000PS030	ProntoSIL 60-3-Si 3um 125 x 2.0mm
1546C000PS030	ProntoSIL 60-3-Si 3um 150 x 4.6mm
1504C000PS030	ProntoSIL 60-3-Si 3um 150 x 4.0mm
1503C000PS030	ProntoSIL 60-3-Si 3um 150 x 3.0mm
1502C000PS030	ProntoSIL 60-3-Si 3um 150 x 2.0mm
2046C000PS030	ProntoSIL 60-3-Si 3um 200 x 4.6mm
2004C000PS030	ProntoSIL 60-3-Si 3um 200 x 4.0mm
2003C000PS030	ProntoSIL 60-3-Si 3um 200 x 3.0mm
2002C000PS030	ProntoSIL 60-3-Si 3um 200 x 2.0mm
2546C000PS030	ProntoSIL 60-3-Si 3um 250 x 4.6mm
2504C000PS030	ProntoSIL 60-3-Si 3um 250 x 4.0mm
2503C000PS030	ProntoSIL 60-3-Si 3um 250 x 3.0mm
2502C000PS030	ProntoSIL 60-3-Si 3um 250 x 2.0mm
10P4C000PS030	ProntoSIL 60-3-Si PEEK column 3um 100 x 4.0mm
12P4C000PS030	ProntoSIL 60-3-Si PEEK column 3um 125 x 4.0mm
15P4C000PS030	ProntoSIL 60-3-Si PEEK column 3um 150 x 4.0mm
20P4C000PS030	ProntoSIL 60-3-Si PEEK column 3um 200 x 4.0mm
25P4C000PS030	ProntoSIL 60-3-Si PEEK column 3um 250 x 4.0mm
0146C000PS050	ProntoSIL 60-5-Si Guard 5um 14 x 4.6mm
0104C000PS050	ProntoSIL 60-5-Si Guard 5um 14 x 4.0mm
1046C000PS050	ProntoSIL 60-5-Si 5um 100 x 4.6mm
1004C000PS050	ProntoSIL 60-5-Si 5um 100 x 4.0mm
1003C000PS050	ProntoSIL 60-5-Si 5um 100 x 3.0mm
1002C000PS050	ProntoSIL 60-5-Si 5um 100 x 2.0mm
1246C000PS050	ProntoSIL 60-5-Si 5um 125 x 4.6mm
1204C000PS050	ProntoSIL 60-5-Si 5um 125 x 4.0mm
1203C000PS050	ProntoSIL 60-5-Si 5um 125 x 3.0mm
1202C000PS050	ProntoSIL 60-5-Si 5um 125 x 2.0mm
1546C000PS050	ProntoSIL 60-5-Si 5um 150 x 4.6mm
1504C000PS050	ProntoSIL 60-5-Si 5um 150 x 4.0mm

PART NUMBER	DESCRIPTION
1503C000PS050	ProntoSIL 60-5-Si 5um 150 x 3.0mm
1502C000PS050	ProntoSIL 60-5-Si 5um 150 x 2.0mm
2046C000PS050	ProntoSIL 60-5-Si 5um 200 x 4.6mm
2004C000PS050	ProntoSIL 60-5-Si 5um 200 x 4.0mm
2003C000PS050	ProntoSIL 60-5-Si 5um 200 x 3.0mm
2002C000PS050	ProntoSIL 60-5-Si 5um 200 x 2.0mm
2546C000PS050	ProntoSIL 60-5-Si 5um 250 x 4.6mm
2504C000PS050	ProntoSIL 60-5-Si 5um 250 x 4.0mm
2503C000PS050	ProntoSIL 60-5-Si 5um 250 x 3.0mm
2502C000PS050	ProntoSIL 60-5-Si 5um 250 x 2.0mm
3046C000PS050	ProntoSIL 60-5-Si 5um 300 x 4.6mm
3004C000PS050	ProntoSIL 60-5-Si 5um 300 x 4.0mm
3003C000PS050	ProntoSIL 60-5-Si 5um 300 x 3.0mm
3002C000PS050	ProntoSIL 60-5-Si 5um 300 x 2.0mm
10P4C000PS050	ProntoSIL 60-5-Si PEEK column 5um 100 x 4.0mm
12P4C000PS050	ProntoSIL 60-5-Si PEEK column 5um 125 x 4.0mm
15P4C000PS050	ProntoSIL 60-5-Si PEEK column 5um 150 x 4.0mm
20P4C000PS050	ProntoSIL 60-5-Si PEEK column 5um 200 x 4.0mm
25P4C000PS050	ProntoSIL 60-5-Si PEEK column 5um 250 x 4.0mm
30P4C000PS050	ProntoSIL 60-5-Si PEEK column 5um 300 x 4.0mm
0146F000PS030	ProntoSIL 120-3-Si Guard 3um 14 x 4.6mm
0104F000PS030	ProntoSIL 120-3-Si Guard 3um 14 x 4.0mm
1046F000PS030	ProntoSIL 120-3-Si 3um 100 x 4.6mm
1004F000PS030	ProntoSIL 120-3-Si 3um 100 x 4.6mm
1003F000PS030	ProntoSIL 120-3-Si 3um 100 x 3.0mm
1002F000PS030	ProntoSIL 120-3-Si 3um 100 x 2.0mm
1246F000PS030	ProntoSIL 120-3-Si 3um 125 x 4.6mm
1204F000PS030	ProntoSIL 120-3-Si 3um 125 x 4.0mm
1203F000PS030	ProntoSIL 120-3-Si 3um 125 x 3.0mm
1202F000PS030	ProntoSIL 120-3-Si 3um 125 x 2.0mm
1546F000PS030	ProntoSIL 120-3-Si 3um 150 x 4.6mm
1504F000PS030	ProntoSIL 120-3-Si 3um 150 x 4.0mm
1503F000PS030	ProntoSIL 120-3-Si 3um 150 x 3.0mm
1502F000PS030	ProntoSIL 120-3-Si 3um 150 x 2.0mm
2046F000PS030	ProntoSIL 120-3-Si 3um 200 x 4.6mm
2004F000PS030	ProntoSIL 120-3-Si 3um 200 x 4.0mm
2003F000PS030	ProntoSIL 120-3-Si 3um 200 x 3.0mm
2002F000PS030	ProntoSIL 120-3-Si 3um 200 x 2.0mm
2546F000PS030	ProntoSIL 120-3-Si 3um 250 x 4.6mm
2504F000PS030	ProntoSIL 120-3-Si 3um 250 x 4.0mm

PART NUMBER	DESCRIPTION
2503F000PS030	ProntoSIL 120-3-Si 3um 250 x 3.0mm
2502F000PS030	ProntoSIL 120-3-Si 3um 250 x 2.0mm
10P4F000PS030	ProntoSIL 120-3-Si PEEK column 3um 100 x 4.0mm
12P4F000PS030	ProntoSIL 120-3-Si PEEK column 3um 125 x 4.0mm
15P4F000PS030	ProntoSIL 120-3-Si PEEK column 3um 150 x 4.0mm
20P4F000PS030	ProntoSIL 120-3-Si PEEK column 3um 200 x 4.0mm
25P4F000PS030	ProntoSIL 120-3-Si PEEK column 3um 250 x 4.0mm
0146F000PS050	ProntoSIL 120-5-Si Guard 5um 14 x 4.6mm
0104F000PS050	ProntoSIL 120-5-Si Guard 5um 14 x 4.0mm
1046F000PS050	ProntoSIL 120-5-Si 5um 100 x 4.6mm
1004F000PS050	ProntoSIL 120-5-Si 5um 100 x 4.0mm
1003F000PS050	ProntoSIL 120-5-Si 5um 100 x 3.0mm
1002F000PS050	ProntoSIL 120-5-Si 5um 100 x 2.0mm
1246F000PS050	ProntoSIL 120-5-Si 5um 125 x 4.6mm
1204F000PS050	ProntoSIL 120-5-Si 5um 125 x 4.0mm
1203F000PS050	ProntoSIL 120-5-Si 5um 125 x 3.0mm
1202F000PS050	ProntoSIL 120-5-Si 5um 125 x 2.0mm
1546F000PS050	ProntoSIL 120-5-Si 5um 150 x 4.6mm
1504F000PS050	ProntoSIL 120-5-Si 5um 150 x 4.0mm
1503F000PS050	ProntoSIL 120-5-Si 5um 150 x 3.0mm
1502F000PS050	ProntoSIL 120-5-Si 5um 150 x 2.0mm
2046F000PS050	ProntoSIL 120-5-Si 5um 200 x 4.6mm
2004F000PS050	ProntoSIL 120-5-Si 5um 200 x 4.0mm
2003F000PS050	ProntoSIL 120-5-Si 5um 200 x 3.0mm
2002F000PS050	ProntoSIL 120-5-Si 5um 200 x 2.0mm
2546F000PS050	ProntoSIL 120-5-Si 5um 250 x 4.6mm
2504F000PS050	ProntoSIL 120-5-Si 5um 250 x 4.0mm
2503F000PS050	ProntoSIL 120-5-Si 5um 250 x 3.0mm
2502F000PS050	ProntoSIL 120-5-Si 5um 250 x 2.0mm
3046F000PS050	ProntoSIL 120-5-Si 5um 300 x 4.6mm
3004F000PS050	ProntoSIL 120-5-Si 5um 300 x 4.0mm
3003F000PS050	ProntoSIL 120-5-Si 5um 300 x 3.0mm
3002F000PS050	ProntoSIL 120-5-Si 5um 300 x 2.0mm
10P4F000PS050	ProntoSIL 120-5-Si PEEK column 5um 100 x 4.0mm
12P4F000PS050	ProntoSIL 120-5-Si PEEK column 5um 125 x 4.0mm
15P4F000PS050	ProntoSIL 120-5-Si PEEK column 5um 150 x 4.0mm
20P4F000PS050	ProntoSIL 120-5-Si PEEK column 5um 200 x 4.0mm
25P4F000PS050	ProntoSIL 120-5-Si PEEK column 5um 250 x 4.0mm
30P4F000PS050	ProntoSIL 120-5-Si PEEK column 5um 300 x 4.0mm
0146H000PS030	ProntoSIL 200-3-Si Guard 3um 14 x 4.6mm
0104H000PS030	ProntoSIL 200-3-Si Guard 3um 14 x 4.0mm
1046H000PS030	ProntoSIL 200-3-Si 3um 100 x 4.6mm
1004H000PS030	ProntoSIL 200-3-Si 3um 100 x 4.0mm
1003H000PS030	ProntoSIL 200-3-Si 3um 100 x 3.0mm
1002H000PS030	ProntoSIL 200-3-Si 3um 100 x 2.0mm
1246H000PS030	ProntoSIL 200-3-Si 3um 125 x 4.6mm
1204H000PS030	ProntoSIL 200-3-Si 3um 125 x 4.0mm

PART NUMBER	DESCRIPTION
1203H000PS030	ProntoSIL 200-3-Si 3um 125 x 3.0mm
1202H000PS030	ProntoSIL 200-3-Si 3um 125 x 2.0mm
1546H000PS030	ProntoSIL 200-3-Si 3um 150 x 4.6mm
1504H000PS030	ProntoSIL 200-3-Si 3um 150 x 4.0mm
1503H000PS030	ProntoSIL 200-3-Si 3um 150 x 3.0mm
1502H000PS030	ProntoSIL 200-3-Si 3um 150 x 2.0mm
2046H000PS030	ProntoSIL 200-3-Si 3um 200 x 4.6mm
2004H000PS030	ProntoSIL 200-3-Si 3um 200 x 4.0mm
2003H000PS030	ProntoSIL 200-3-Si 3um 200 x 3.0mm
2002H000PS030	ProntoSIL 200-3-Si 3um 200 x 2.0mm
2546H000PS030	ProntoSIL 200-3-Si 3um 250 x 4.6mm
2504H000PS030	ProntoSIL 200-3-Si 3um 250 x 4.0mm
2503H000PS030	ProntoSIL 200-3-Si 3um 250 x 3.0mm
2502H000PS030	ProntoSIL 200-3-Si 3um 250 x 2.0mm
10P4H000PS030	ProntoSIL 200-3-Si PEEK column 3um 100 x 4.0mm
12P4H000PS030	ProntoSIL 200-3-Si PEEK column 3um 125 x 4.0mm
15P4H000PS030	ProntoSIL 200-3-Si PEEK column 3um 150 x 4.0mm
20P4H000PS030	ProntoSIL 200-3-Si PEEK column 3um 200 x 4.0mm
25P4H000PS030	ProntoSIL 200-3-Si PEEK column 3um 250 x 4.0mm
0146H000PS050	ProntoSIL 200-5-Si Guard 5um 14 x 4.6mm
0104H000PS050	ProntoSIL 200-5-Si Guard 5um 14 x 4.0mm
1046H000PS050	ProntoSIL 200-5-Si 5um 100 x 4.6mm
1004H000PS050	ProntoSIL 200-5-Si 5um 100 x 4.0mm
1003H000PS050	ProntoSIL 200-5-Si 5um 100 x 3.0mm
1002H000PS050	ProntoSIL 200-5-Si 5um 100 x 2.0mm
1246H000PS050	ProntoSIL 200-5-Si 5um 125 x 4.6mm
1204H000PS050	ProntoSIL 200-5-Si 5um 125 x 4.0mm
1203H000PS050	ProntoSIL 200-5-Si 5um 125 x 3.0mm
1202H000PS050	ProntoSIL 200-5-Si 5um 125 x 2.0mm
1546H000PS050	ProntoSIL 200-5-Si 5um 150 x 4.6mm
1504H000PS050	ProntoSIL 200-5-Si 5um 150 x 4.0mm
1503H000PS050	ProntoSIL 200-5-Si 5um 150 x 3.0mm
1502H000PS050	ProntoSIL 200-5-Si 5um 150 x 2.0mm
2046H000PS050	ProntoSIL 200-5-Si 5um 200 x 4.6mm
2004H000PS050	ProntoSIL 200-5-Si 5um 200 x 4.0mm
2003H000PS050	ProntoSIL 200-5-Si 5um 200 x 3.0mm
2002H000PS050	ProntoSIL 200-5-Si 5um 200 x 2.0mm
2546H000PS050	ProntoSIL 200-5-Si 5um 250 x 4.6mm
2504H000PS050	ProntoSIL 200-5-Si 5um 250 x 4.0mm
2503H000PS050	ProntoSIL 200-5-Si 5um 250 x 3.0mm
2502H000PS050	ProntoSIL 200-5-Si 5um 250 x 2.0mm
3046H000PS050	ProntoSIL 200-5-Si 5um 300 x 4.6mm
3004H000PS050	ProntoSIL 200-5-Si 5um 300 x 4.0mm
3003H000PS050	ProntoSIL 200-5-Si 5um 300 x 3.0mm
3002H000PS050	ProntoSIL 200-5-Si 5um 300 x 2.0mm
10P4H000PS050	ProntoSIL 200-5-Si PEEK column 5um 100 x 4.0mm
12P4H000PS050	ProntoSIL 200-5-Si PEEK column 5um 125 x 4.0mm

## ProntoSIL Silica Columns

PART NUMBER	DESCRIPTION
15P4H000PS050	ProntoSIL 200-5-Si PEEK column 5um 150 x 4.0mm
20P4H000PS050	ProntoSIL 200-5-Si PEEK column 5um 200 x 4.0mm
25P4H000PS050	ProntoSIL 200-5-Si PEEK column 5um 250 x 4.0mm
30P4H000PS050	ProntoSIL 200-5-Si PEEK column 5um 300 x 4.0mm
0146K000PS030	ProntoSIL 300-3-Si Guard 3um 14 x 4.6mm
0104K000PS030	ProntoSIL 300-3-Si Guard 3um 14 x 4.0mm
1046K000PS030	ProntoSIL 300-3-Si 3um 100 x 4.6mm
1004K000PS030	ProntoSIL 300-3-Si 3um 100 x 4.0mm
1003K000PS030	ProntoSIL 300-3-Si 3um 100 x 3.0mm
1002K000PS030	ProntoSIL 300-3-Si 3um 100 x 2.0mm
1246K000PS030	ProntoSIL 300-3-Si 3um 125 x 4.6mm
1204K000PS030	ProntoSIL 300-3-Si 3um 125 x 4.0mm
1203K000PS030	ProntoSIL 300-3-Si 3um 125 x 3.0mm
1202K000PS030	ProntoSIL 300-3-Si 3um 125 x 2.0mm
1546K000PS030	ProntoSIL 300-3-Si 3um 150 x 4.6mm
1504K000PS030	ProntoSIL 300-3-Si 3um 150 x 4.0mm
1503K000PS030	ProntoSIL 300-3-Si 3um 150 x 3.0mm
1502K000PS030	ProntoSIL 300-3-Si 3um 150 x 2.0mm
2046K000PS030	ProntoSIL 300-3-Si 3um 200 x 4.6mm
2004K000PS030	ProntoSIL 300-3-Si 3um 200 x 4.0mm
2003K000PS030	ProntoSIL 300-3-Si 3um 200 x 3.0mm
2002K000PS030	ProntoSIL 300-3-Si 3um 200 x 2.0mm
2546K000PS030	ProntoSIL 300-3-Si 3um 250 x 4.6mm
2504K000PS030	ProntoSIL 300-3-Si 3um 250 x 4.0mm
2503K000PS030	ProntoSIL 300-3-Si 3um 250 x 3.0mm
2502K000PS030	ProntoSIL 300-3-Si 3um 250 x 2.0mm
10P4K000PS030	ProntoSIL 300-3-Si PEEK column 3um 100 x 4.0mm
12P4K000PS030	ProntoSIL 300-3-Si PEEK column 3um 125 x 4.0mm
15P4K000PS030	ProntoSIL 300-3-Si PEEK column 3um 150 x 4.0mm
20P4K000PS030	ProntoSIL 300-3-Si PEEK column 3um 200 x 4.0mm
25P4K000PS030	ProntoSIL 300-3-Si PEEK column 3um 250 x 4.0mm
0146K000PS050	ProntoSIL 300-5-Si Guard 5um 14 x 4.6mm
0104K000PS050	ProntoSIL 300-5-Si Guard 5um 14 x 4.0mm
1046K000PS050	ProntoSIL 300-5-Si 5um 100 x 4.6mm
1004K000PS050	ProntoSIL 300-5-Si 5um 100 x 4.0mm
1003K000PS050	ProntoSIL 300-5-Si 5um 100 x 3.0mm
1002K000PS050	ProntoSIL 300-5-Si 5um 100 x 2.0mm
1246K000PS050	ProntoSIL 300-5-Si 5um 125 x 4.6mm
1204K000PS050	ProntoSIL 300-5-Si 5um 125 x 4.0mm
1203K000PS050	ProntoSIL 300-5-Si 5um 125 x 3.0mm
1202K000PS050	ProntoSIL 300-5-Si 5um 125 x 2.0mm
1546K000PS050	ProntoSIL 300-5-Si 5um 150 x 4.6mm
1504K000PS050	ProntoSIL 300-5-Si 5um 150 x 4.0mm
1503K000PS050	ProntoSIL 300-5-Si 5um 150 x 3.0mm
1502K000PS050	ProntoSIL 300-5-Si 5um 150 x 2.0mm
2046K000PS050	ProntoSIL 300-5-Si 5um 200 x 4.6mm
2004K000PS050	ProntoSIL 300-5-Si 5um 200 x 4.0mm

PART NUMBER	DESCRIPTION
2003K000PS050	ProntoSIL 300-5-Si 5um 200 x 3.0mm
2002K000PS050	ProntoSIL 300-5-Si 5um 200 x 2.0mm
2546K000PS050	ProntoSIL 300-5-Si 5um 250 x 4.6mm
2504K000PS050	ProntoSIL 300-5-Si 5um 250 x 4.0mm
2503K000PS050	ProntoSIL 300-5-Si 5um 250 x 3.0mm
2502K000PS050	ProntoSIL 300-5-Si 5um 250 x 2.0mm
3046K000PS050	ProntoSIL 300-5-Si 5um 300 x 4.6mm
3004K000PS050	ProntoSIL 300-5-Si 5um 300 x 4.0mm
3003K000PS050	ProntoSIL 300-5-Si 5um 300 x 3.0mm
3002K000PS050	ProntoSIL 300-5-Si 5um 300 x 2.0mm
10P4K000PS050	ProntoSIL 300-5-Si PEEK column 5um 100 x 4.0mm
12P4K000PS050	ProntoSIL 300-5-Si PEEK column 5um 125 x 4.0mm
15P4K000PS050	ProntoSIL 300-5-Si PEEK column 5um 150 x 4.0mm
20P4K000PS050	ProntoSIL 300-5-Si PEEK column 5um 200 x 4.0mm
25P4K000PS050	ProntoSIL 300-5-Si PEEK column 5um 250 x 4.0mm
30P4K000PS050	ProntoSIL 300-5-Si PEEK column 5um 300 x 4.0mm

## ProntoSIL Phenyl Columns(3um, 5um, 10um)

PART NUMBER	DESCRIPTION
0146F050PS030	ProntoSIL 120-3-Phenyl Guard 3um 14 x 4.6mm
0104F050PS030	ProntoSIL 120-3-Phenyl Guard 3um 14 x 4.0mm
1046F050PS030	ProntoSIL 120-3-Phenyl 3um 100 x 4.6mm
1004F050PS030	ProntoSIL 120-3-Phenyl 3um 100 x 4.0mm
1003F050PS030	ProntoSIL 120-3-Phenyl 3um 100 x 3.0mm
1002F050PS030	ProntoSIL 120-3-Phenyl 3um 100 x 2.0mm
1246F050PS030	ProntoSIL 120-3-Phenyl 3um 125 x 4.6mm
1204F050PS030	ProntoSIL 120-3-Phenyl 3um 125 x 4.0mm
1203F050PS030	ProntoSIL 120-3-Phenyl 3um 125 x 3.0mm
1202F050PS030	ProntoSIL 120-3-Phenyl 3um 125 x 2.0mm
1546F050PS030	ProntoSIL 120-3-Phenyl 3um 150 x 4.6mm
1504F050PS030	ProntoSIL 120-3-Phenyl 3um 150 x 4.0mm
1503F050PS030	ProntoSIL 120-3-Phenyl 3um 150 x 3.0mm
1502F050PS030	ProntoSIL 120-3-Phenyl 3um 150 x 2.0mm
2046F050PS030	ProntoSIL 120-3-Phenyl 3um 200 x 4.6mm
2004F050PS030	ProntoSIL 120-3-Phenyl 3um 200 x 4.0mm
2003F050PS030	ProntoSIL 120-3-Phenyl 3um 200 x 3.0mm
2002F050PS030	ProntoSIL 120-3-Phenyl 3um 200 x 2.0mm
2546F050PS030	ProntoSIL 120-3-Phenyl 3um 250 x 4.6mm
2504F050PS030	ProntoSIL 120-3-Phenyl 3um 250 x 4.0mm
2503F050PS030	ProntoSIL 120-3-Phenyl 3um 250 x 3.0mm
2502F050PS030	ProntoSIL 120-3-Phenyl 3um 250 x 2.0mm
10P4F050PS030	ProntoSIL 120-3-Phenyl PEEK column 3um 100 x 4.0mm
12P4F050PS030	ProntoSIL 120-3-Phenyl PEEK column 3um 125 x 4.0mm
15P4F050PS030	ProntoSIL 120-3-Phenyl PEEK column 3um 150 x 4.0mm
20P4F050PS030	ProntoSIL 120-3-Phenyl PEEK column 3um 200 x 4.0mm
25P4F050PS030	ProntoSIL 120-3-Phenyl PEEK column 3um 250 x 4.0mm
0146C050PS050	ProntoSIL 60-5-Phenyl Guard 5um 14 x 4.6mm
0104C050PS050	ProntoSIL 60-5-Phenyl Guard 5um 14 x 4.0mm
1046C050PS050	ProntoSIL 60-5-Phenyl 5um 100 x 4.6mm
1004C050PS050	ProntoSIL 60-5-Phenyl 5um 100 x 4.0mm
1003C050PS050	ProntoSIL 60-5-Phenyl 5um 100 x 3.0mm
1002C050PS050	ProntoSIL 60-5-Phenyl 5um 100 x 2.0mm
1246C050PS050	ProntoSIL 60-5-Phenyl 5um 125 x 4.6mm
1204C050PS050	ProntoSIL 60-5-Phenyl 5um 125 x 4.0mm
1203C050PS050	ProntoSIL 60-5-Phenyl 5um 125 x 3.0mm
1202C050PS050	ProntoSIL 60-5-Phenyl 5um 125 x 2.0mm
1546C050PS050	ProntoSIL 60-5-Phenyl 5um 150 x 4.6mm
1504C050PS050	ProntoSIL 60-5-Phenyl 5um 150 x 4.0mm
1203C050PS050	ProntoSIL 60-5-Phenyl 5um 125 x 3.0mm

PART NUMBER	DESCRIPTION
1202C050PS050	ProntoSIL 60-5-Phenyl 5um 125 x 2.0mm
1546C050PS050	ProntoSIL 60-5-Phenyl 5um 150 x 4.6mm
1504C050PS050	ProntoSIL 60-5-Phenyl 5um 150 x 4.0mm
1503C050PS050	ProntoSIL 60-5-Phenyl 5um 150 x 3.0mm
1502C050PS050	ProntoSIL 60-5-Phenyl 5um 150 x 2.0mm
2046C050PS050	ProntoSIL 60-5-Phenyl 5um 200 x 4.6mm
2004C050PS050	ProntoSIL 60-5-Phenyl 5um 200 x 4.0mm
2003C050PS050	ProntoSIL 60-5-Phenyl 5um 200 x 3.0mm
2002C050PS050	ProntoSIL 60-5-Phenyl 5um 200 x 2.0mm
2546C050PS050	ProntoSIL 60-5-Phenyl 5um 250 x 4.6mm
2504C050PS050	ProntoSIL 60-5-Phenyl 5um 250 x 4.0mm
2503C050PS050	ProntoSIL 60-5-Phenyl 5um 250 x 3.0mm
2502C050PS050	ProntoSIL 60-5-Phenyl 5um 250 x 2.0mm
3046C050PS050	ProntoSIL 60-5-Phenyl 5um 300 x 4.6mm
3004C050PS050	ProntoSIL 60-5-Phenyl 5um 300 x 4.0mm
3003C050PS050	ProntoSIL 60-5-Phenyl 5um 300 x 3.0mm
3002C050PS050	ProntoSIL 60-5-Phenyl 5um 300 x 2.0mm
10P4C050PS050	ProntoSIL 60-5-Phenyl PEEK column 5um 100 x 4.0mm
12P4C050PS050	ProntoSIL 60-5-Phenyl PEEK column 5um 125 x 4.0mm
15P4C050PS050	ProntoSIL 60-5-Phenyl PEEK column 5um 150 x 4.0mm
20P4C050PS050	ProntoSIL 60-5-Phenyl PEEK column 5um 200 x 4.0mm
25P4C050PS050	ProntoSIL 60-5-Phenyl PEEK column 5um 250 x 4.0mm
30P4C050PS050	ProntoSIL 60-5-Phenyl PEEK column 5um 300 x 4.0mm
0146F050PS050	ProntoSIL 120-5-Phenyl Guard 5um 14 x 4.6mm
0104F050PS050	ProntoSIL 120-5-Phenyl Guard 5um 14 x 4.0mm
1046F050PS050	ProntoSIL 120-5-Phenyl 5um 100 x 4.6mm
1004F050PS050	ProntoSIL 120-5-Phenyl 5um 100 x 4.0mm
1003F050PS050	ProntoSIL 120-5-Phenyl 5um 100 x 3.0mm
1002F050PS050	ProntoSIL 120-5-Phenyl 5um 100 x 2.0mm
1246F050PS050	ProntoSIL 120-5-Phenyl 5um 125 x 4.6mm
1204F050PS050	ProntoSIL 120-5-Phenyl 5um 125 x 4.0mm
1203F050PS050	ProntoSIL 120-5-Phenyl 5um 125 x 3.0mm
1202F050PS050	ProntoSIL 120-5-Phenyl 5um 125 x 2.0mm
1546F050PS050	ProntoSIL 120-5-Phenyl 5um 150 x 4.6mm
1504F050PS050	ProntoSIL 120-5-Phenyl 5um 150 x 4.0mm
1503F050PS050	ProntoSIL 120-5-Phenyl 5um 150 x 3.0mm

PART NUMBER	DESCRIPTION
1502F050PS050	ProntoSIL 120-5-Phenyl 5um 150 x 2.0mm
2046F050PS050	ProntoSIL 120-5-Phenyl 5um 200 x 4.6mm
2004F050PS050	ProntoSIL 120-5-Phenyl 5um 200 x 4.0mm
2003F050PS050	ProntoSIL 120-5-Phenyl 5um 200 x 3.0mm
2002F050PS050	ProntoSIL 120-5-Phenyl 5um 200 x 2.0mm
2546F050PS050	ProntoSIL 120-5-Phenyl 5um 250 x 4.6mm
2504F050PS050	ProntoSIL 120-5-Phenyl 5um 250 x 4.0mm
2503F050PS050	ProntoSIL 120-5-Phenyl 5um 250 x 3.0mm
2502F050PS050	ProntoSIL 120-5-Phenyl 5um 250 x 2.0mm
3046F050PS050	ProntoSIL 120-5-Phenyl 5um 300 x 4.6mm
3004F050PS050	ProntoSIL 120-5-Phenyl 5um 300 x 4.0mm
3003F050PS050	ProntoSIL 120-5-Phenyl 5um 300 x 3.0mm
3002F050PS050	ProntoSIL 120-5-Phenyl 5um 300 x 2.0mm
10P4F050PS050	ProntoSIL 120-5-Phenyl PEEK column 5um 100 x 4.0mm
12P4F050PS050	ProntoSIL 120-5-Phenyl PEEK column 5um 125 x 4.0mm
15P4F050PS050	ProntoSIL 120-5-Phenyl PEEK column 5um 150 x 4.0mm
20P4F050PS050	ProntoSIL 120-5-Phenyl PEEK column 5um 200 x 4.0mm
25P4F050PS050	ProntoSIL 120-5-Phenyl PEEK column 5um 250 x 4.0mm
30P4F050PS050	ProntoSIL 120-5-Phenyl PEEK column 5um 300 x 4.0mm
0146F050PS100	ProntoSIL 120-10-Phenyl Guard 10um 14 x 4.6mm
0104F050PS100	ProntoSIL 120-10-Phenyl Guard 10um 14 x 4.0mm
1046F050PS100	ProntoSIL 120-10-Phenyl 10um 100 x 4.6mm
1004F050PS100	ProntoSIL 120-10-Phenyl 10um 100 x 4.0mm
1003F050PS100	ProntoSIL 120-10-Phenyl 10um 100 x 3.0mm
1002F050PS100	ProntoSIL 120-10-Phenyl 10um 100 x 2.0mm
1246F050PS100	ProntoSIL 120-10-Phenyl 10um 125 x 4.6mm
1204F050PS100	ProntoSIL 120-10-Phenyl 10um 125 x 4.0mm
1203F050PS100	ProntoSIL 120-10-Phenyl 10um 125 x 3.0mm
1202F050PS100	ProntoSIL 120-10-Phenyl 10um 125 x 2.0mm
1546F050PS100	ProntoSIL 120-10-Phenyl 10um 150 x 4.6mm
1504F050PS100	ProntoSIL 120-10-Phenyl 10um 150 x 4.0mm
1503F050PS100	ProntoSIL 120-10-Phenyl 10um 150 x 3.0mm
1502F050PS100	ProntoSIL 120-10-Phenyl 10um 150 x 2.0mm
2046F050PS100	ProntoSIL 120-10-Phenyl 10um 200 x 4.6mm
2004F050PS100	ProntoSIL 120-10-Phenyl 10um 200 x 4.0mm
2003F050PS100	ProntoSIL 120-10-Phenyl 10um 200 x 3.0mm
2002F050PS100	ProntoSIL 120-10-Phenyl 10um 200 x 2.0mm
2546F050PS100	ProntoSIL 120-10-Phenyl 10um 250 x 4.6mm
2504F050PS100	ProntoSIL 120-10-Phenyl 10um 250 x 4.0mm
2503F050PS100	ProntoSIL 120-10-Phenyl 10um 250 x 3.0mm
2502F050PS100	ProntoSIL 120-10-Phenyl 10um 250 x 2.0mm
3046F050PS100	ProntoSIL 120-10-Phenyl 10um 300 x 4.6mm
3004F050PS100	ProntoSIL 120-10-Phenyl 10um 300 x 4.0mm
3003F050PS100	ProntoSIL 120-10-Phenyl 10um 300 x 3.0mm

PART NUMBER	DESCRIPTION
3002F050PS100	ProntoSIL 120-10-Phenyl 10um 300 x 2.0mm
10P4F050PS100	ProntoSIL 120-10-Phenyl PEEK column 10um 100 x 4.0mm
12P4F050PS100	ProntoSIL 120-10-Phenyl PEEK column 10um 125 x 4.0mm
15P4F050PS100	ProntoSIL 120-10-Phenyl PEEK column 10um 150 x 4.0mm
20P4F050PS100	ProntoSIL 120-10-Phenyl PEEK column 10um 200 x 4.0mm
25P4F050PS100	ProntoSIL 120-10-Phenyl PEEK column 10um 250 x 4.0mm
30P4F050PS100	ProntoSIL 120-10-Phenyl PEEK column 10um 300 x 4.0mm
1246F440PS030	ProntoSIL 120-3-Enviro-PHE 3um 125 x 4.6mm

## ProntoSIL CN Columns(3um, 5um, 10um)

PART NUMBER	DESCRIPTION
0146F200PS030	ProntoSIL 120-3-CN Guard 3um 14 x 4.6mm
0104F200PS030	ProntoSIL 120-3-CN Guard 3um 14 x 4.0mm
1046F200PS030	ProntoSIL 120-3-CN 3um 100 x 4.6mm
1004F200PS030	ProntoSIL 120-3-CN 3um 100 x 4.6mm
1003F200PS030	ProntoSIL 120-3-CN 3um 100 x 3.0mm
1002F200PS030	ProntoSIL 120-3-CN 3um 100 x 2.0mm
1246F200PS030	ProntoSIL 120-3-CN 3um 125 x 4.6mm
1204F200PS030	ProntoSIL 120-3-CN 3um 125 x 4.0mm
1203F200PS030	ProntoSIL 120-3-CN 3um 125 x 3.0mm
1202F200PS030	ProntoSIL 120-3-CN 3um 125 x 2.0mm
1546F200PS030	ProntoSIL 120-3-CN 3um 150 x 4.6mm
1504F200PS030	ProntoSIL 120-3-CN 3um 150 x 4.0mm
1503F200PS030	ProntoSIL 120-3-CN 3um 150 x 3.0mm
1502F200PS030	ProntoSIL 120-3-CN 3um 150 x 2.0mm
2046F200PS030	ProntoSIL 120-3-CN 3um 200 x 4.6mm
2004F200PS030	ProntoSIL 120-3-CN 3um 200 x 4.0mm
2003F200PS030	ProntoSIL 120-3-CN 3um 200 x 3.0mm
2002F200PS030	ProntoSIL 120-3-CN 3um 200 x 2.0mm
2546F200PS030	ProntoSIL 120-3-CN 3um 250 x 4.6mm
2504F200PS030	ProntoSIL 120-3-CN 3um 250 x 4.0mm
2503F200PS030	ProntoSIL 120-3-CN 3um 250 x 3.0mm
2502F200PS030	ProntoSIL 120-3-CN 3um 250 x 2.0mm
10P4F200PS030	ProntoSIL 120-3-CN PEEK column 3um 100 x 4.0mm
12P4F200PS030	ProntoSIL 120-3-CN PEEK column 3um 125 x 4.0mm
15P4F200PS030	ProntoSIL 120-3-CN PEEK column 3um 150 x 4.0mm
20P4F200PS030	ProntoSIL 120-3-CN PEEK column 3um 200 x 4.0mm
25P4F200PS030	ProntoSIL 120-3-CN PEEK column 3um 250 x 4.0mm
0146F200PS050	ProntoSIL 120-5-CN Guard 5um 14 x 4.6mm
0104F200PS050	ProntoSIL 120-5-CN Guard 5um 14 x 4.0mm
1046F200PS050	ProntoSIL 120-5-CN 5um 100 x 4.6mm
1004F200PS050	ProntoSIL 120-5-CN 5um 100 x 4.0mm
1003F200PS050	ProntoSIL 120-5-CN 5um 100 x 3.0mm
1002F200PS050	ProntoSIL 120-5-CN 5um 100 x 2.0mm
1246F200PS050	ProntoSIL 120-5-CN 5um 125 x 4.6mm
1204F200PS050	ProntoSIL 120-5-CN 5um 125 x 4.0mm
1203F200PS050	ProntoSIL 120-5-CN 5um 125 x 3.0mm
1202F200PS050	ProntoSIL 120-5-CN 5um 125 x 2.0mm
1546F200PS050	ProntoSIL 120-5-CN 5um 150 x 4.6mm
1504F200PS050	ProntoSIL 120-5-CN 5um 150 x 4.0mm
1503F200PS050	ProntoSIL 120-5-CN 5um 150 x 3.0mm

PART NUMBER	DESCRIPTION
1202F200PS050	ProntoSIL 120-5-CN 5um 125 x 2.0mm
1546F200PS050	ProntoSIL 120-5-CN 5um 150 x 4.6mm
1504F200PS050	ProntoSIL 120-5-CN 5um 150 x 4.0mm
1503F200PS050	ProntoSIL 120-5-CN 5um 150 x 3.0mm
1502F200PS050	ProntoSIL 120-5-CN 5um 150 x 2.0mm
2046F200PS050	ProntoSIL 120-5-CN 5um 200 x 4.6mm
2004F200PS050	ProntoSIL 120-5-CN 5um 200 x 4.0mm
2003F200PS050	ProntoSIL 120-5-CN 5um 200 x 3.0mm
2002F200PS050	ProntoSIL 120-5-CN 5um 200 x 2.0mm
2546F200PS050	ProntoSIL 120-5-CN 5um 250 x 4.6mm
2504F200PS050	ProntoSIL 120-5-CN 5um 250 x 4.0mm
2503F200PS050	ProntoSIL 120-5-CN 5um 250 x 3.0mm
2502F200PS050	ProntoSIL 120-5-CN 5um 250 x 2.0mm
3046F200PS050	ProntoSIL 120-5-CN 5um 300 x 4.6mm
3004F200PS050	ProntoSIL 120-5-CN 5um 300 x 4.0mm
3003F200PS050	ProntoSIL 120-5-CN 5um 300 x 3.0mm
3002F200PS050	ProntoSIL 120-5-CN 5um 300 x 2.0mm
10P4F200PS050	ProntoSIL 120-5-CN PEEK column 5um 100 x 4.0mm
12P4F200PS050	ProntoSIL 120-5-CN PEEK column 5um 125 x 4.0mm
15P4F200PS050	ProntoSIL 120-5-CN PEEK column 5um 150 x 4.0mm
20P4F200PS050	ProntoSIL 120-5-CN PEEK column 5um 200 x 4.0mm
25P4F200PS050	ProntoSIL 120-5-CN PEEK column 5um 250 x 4.0mm
30P4F200PS050	ProntoSIL 120-5-CN PEEK column 5um 300 x 4.0mm
0146F200PS100	ProntoSIL 120-10-CN Guard 10um 14 x 4.6mm
0104F200PS100	ProntoSIL 120-10-CN Guard 10um 14 x 4.0mm
1046F200PS100	ProntoSIL 120-10-CN 10um 100 x 4.6mm
1004F200PS100	ProntoSIL 120-10-CN 10um 100 x 4.0mm
1003F200PS100	ProntoSIL 120-10-CN 10um 100 x 3.0mm
1002F200PS100	ProntoSIL 120-10-CN 10um 100 x 2.0mm
1246F200PS100	ProntoSIL 120-10-CN 10um 125 x 4.6mm
1204F200PS100	ProntoSIL 120-10-CN 10um 125 x 4.0mm
1203F200PS100	ProntoSIL 120-10-CN 10um 125 x 3.0mm
1202F200PS100	ProntoSIL 120-10-CN 10um 125 x 2.0mm
1546F200PS100	ProntoSIL 120-10-CN 10um 150 x 4.6mm
1504F200PS100	ProntoSIL 120-10-CN 10um 150 x 4.0mm
1503F200PS100	ProntoSIL 120-10-CN 10um 150 x 3.0mm

PART NUMBER	DESCRIPTION
1502F200PS100	ProntoSIL 120-10-CN 10um 150 x 2.0mm
2046F200PS100	ProntoSIL 120-10-CN 10um 200 x 4.6mm
2004F200PS100	ProntoSIL 120-10-CN 10um 200 x 4.0mm
2003F200PS100	ProntoSIL 120-10-CN 10um 200 x 3.0mm
2002F200PS100	ProntoSIL 120-10-CN 10um 200 x 2.0mm
2546F200PS100	ProntoSIL 120-10-CN 10um 250 x 4.6mm
2504F200PS100	ProntoSIL 120-10-CN 10um 250 x 4.0mm
2503F200PS100	ProntoSIL 120-10-CN 10um 250 x 3.0mm
2502F200PS100	ProntoSIL 120-10-CN 10um 250 x 2.0mm
3046F200PS100	ProntoSIL 120-10-CN 10um 300 x 4.6mm
3004F200PS100	ProntoSIL 120-10-CN 10um 300 x 4.0mm
3003F200PS100	ProntoSIL 120-10-CN 10um 300 x 3.0mm
3002F200PS100	ProntoSIL 120-10-CN 10um 300 x 2.0mm
10P4F200PS100	ProntoSIL 120-10-CN PEEK column 10um 100 x 4.0mm
12P4F200PS100	ProntoSIL 120-10-CN PEEK column 10um 125 x 4.0mm
15P4F200PS100	ProntoSIL 120-10-CN PEEK column 10um 150 x 4.0mm
20P4F200PS100	ProntoSIL 120-10-CN PEEK column 10um 200 x 4.0mm
25P4F200PS100	ProntoSIL 120-10-CN PEEK column 10um 250 x 4.0mm
30P4F200PS100	ProntoSIL 120-10-CN PEEK column 10um 300 x 4.0mm

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## ProntoSIL DIOL Columns(3um, 5um, 10um)

PART NUMBER	DESCRIPTION
0146F410PS030	ProntoSIL 120-3-DIOL Guard 3um 14 x 4.6mm
0104F410PS030	ProntoSIL 120-3-DIOL Guard 3um 14 x 4.0mm
1046F410PS030	ProntoSIL 120-3-DIOL 3um 100 x 4.6mm
1004F410PS030	ProntoSIL 120-3-DIOL 3um 100 x 4.6mm
1003F410PS030	ProntoSIL 120-3-DIOL 3um 100 x 3.0mm
1002F410PS030	ProntoSIL 120-3-DIOL 3um 100 x 2.0mm
1246F410PS030	ProntoSIL 120-3-DIOL 3um 125 x 4.6mm
1204F410PS030	ProntoSIL 120-3-DIOL 3um 125 x 4.0mm
1203F410PS030	ProntoSIL 120-3-DIOL 3um 125 x 3.0mm
1202F410PS030	ProntoSIL 120-3-DIOL 3um 125 x 2.0mm
1546F410PS030	ProntoSIL 120-3-DIOL 3um 150 x 4.6mm
1504F410PS030	ProntoSIL 120-3-DIOL 3um 150 x 4.0mm
1503F410PS030	ProntoSIL 120-3-DIOL 3um 150 x 3.0mm
1502F410PS030	ProntoSIL 120-3-DIOL 3um 150 x 2.0mm
2046F410PS030	ProntoSIL 120-3-DIOL 3um 200 x 4.6mm
2004F410PS030	ProntoSIL 120-3-DIOL 3um 200 x 4.0mm
2003F410PS030	ProntoSIL 120-3-DIOL 3um 200 x 3.0mm
2002F410PS030	ProntoSIL 120-3-DIOL 3um 200 x 2.0mm
2546F410PS030	ProntoSIL 120-3-DIOL 3um 250 x 4.6mm
2504F410PS030	ProntoSIL 120-3-DIOL 3um 250 x 4.0mm
2503F410PS030	ProntoSIL 120-3-DIOL 3um 250 x 3.0mm
2502F410PS030	ProntoSIL 120-3-DIOL 3um 250 x 2.0mm
10P4F410PS030	ProntoSIL 120-3-DIOL PEEK column 3um 100 x 4.0mm
12P4F410PS030	ProntoSIL 120-3-DIOL PEEK column 3um 125 x 4.0mm
15P4F410PS030	ProntoSIL 120-3-DIOL PEEK column 3um 150 x 4.0mm
20P4F410PS030	ProntoSIL 120-3-DIOL PEEK column 3um 200 x 4.0mm
25P4F410PS030	ProntoSIL 120-3-DIOL PEEK column 3um 250 x 4.0mm
0146F410PS050	ProntoSIL 120-5-DIOL Guard 5um 14 x 4.6mm
0104F410PS050	ProntoSIL 120-5-DIOL Guard 5um 14 x 4.0mm
1046F410PS050	ProntoSIL 120-5-DIOL 5um 100 x 4.6mm
1004F410PS050	ProntoSIL 120-5-DIOL 5um 100 x 4.0mm
1003F410PS050	ProntoSIL 120-5-DIOL 5um 100 x 3.0mm
1002F410PS050	ProntoSIL 120-5-DIOL 5um 100 x 2.0mm
1246F410PS050	ProntoSIL 120-5-DIOL 5um 125 x 4.6mm
1204F410PS050	ProntoSIL 120-5-DIOL 5um 125 x 4.0mm
1203F410PS050	ProntoSIL 120-5-DIOL 5um 125 x 3.0mm
1546F410PS050	ProntoSIL 120-5-DIOL 5um 150 x 4.6mm
1203F410PS050	ProntoSIL 120-5-DIOL 5um 125 x 3.0mm

PART NUMBER	DESCRIPTION
1202F410PS050	ProntoSIL 120-5-DIOL 5um 125 x 2.0mm
1546F410PS050	ProntoSIL 120-5-DIOL 5um 150 x 4.6mm
1504F410PS050	ProntoSIL 120-5-DIOL 5um 150 x 4.0mm
1503F410PS050	ProntoSIL 120-5-DIOL 5um 150 x 3.0mm
1502F410PS050	ProntoSIL 120-5-DIOL 5um 150 x 2.0mm
2046F410PS050	ProntoSIL 120-5-DIOL 5um 200 x 4.6mm
2004F410PS050	ProntoSIL 120-5-DIOL 5um 200 x 4.0mm
2003F410PS050	ProntoSIL 120-5-DIOL 5um 200 x 3.0mm
2002F410PS050	ProntoSIL 120-5-DIOL 5um 200 x 2.0mm
2546F410PS050	ProntoSIL 120-5-DIOL 5um 250 x 4.6mm
2504F410PS050	ProntoSIL 120-5-DIOL 5um 250 x 4.0mm
2503F410PS050	ProntoSIL 120-5-DIOL 5um 250 x 3.0mm
2502F410PS050	ProntoSIL 120-5-DIOL 5um 250 x 2.0mm
3046F410PS050	ProntoSIL 120-5-DIOL 5um 300 x 4.6mm
3004F410PS050	ProntoSIL 120-5-DIOL 5um 300 x 4.0mm
3003F410PS050	ProntoSIL 120-5-DIOL 5um 300 x 3.0mm
3002F410PS050	ProntoSIL 120-5-DIOL 5um 300 x 2.0mm
10P4F410PS050	ProntoSIL 120-5-DIOL PEEK column 5um 100 x 4.0mm
12P4F410PS050	ProntoSIL 120-5-DIOL PEEK column 5um 125 x 4.0mm
15P4F410PS050	ProntoSIL 120-5-DIOL PEEK column 5um 150 x 4.0mm
20P4F410PS050	ProntoSIL 120-5-DIOL PEEK column 5um 200 x 4.0mm
25P4F410PS050	ProntoSIL 120-5-DIOL PEEK column 5um 250 x 4.0mm
30P4F410PS050	ProntoSIL 120-5-DIOL PEEK column 5um 300 x 4.0mm
0146F410PS100	ProntoSIL 120-10-DIOL Guard 10um 14 x 4.6mm
0104F410PS100	ProntoSIL 120-10-DIOL Guard 10um 14 x 4.0mm
1046F410PS100	ProntoSIL 120-10-DIOL 10um 100 x 4.6mm
1004F410PS100	ProntoSIL 120-10-DIOL 10um 100 x 4.0mm
1003F410PS100	ProntoSIL 120-10-DIOL 10um 100 x 3.0mm
1002F410PS100	ProntoSIL 120-10-DIOL 10um 100 x 2.0mm
1246F410PS100	ProntoSIL 120-10-DIOL 10um 125 x 4.6mm
1204F410PS100	ProntoSIL 120-10-DIOL 10um 125 x 4.0mm
1203F410PS100	ProntoSIL 120-10-DIOL 10um 125 x 3.0mm
1202F410PS100	ProntoSIL 120-10-DIOL 10um 125 x 2.0mm
1546F410PS100	ProntoSIL 120-10-DIOL 10um 150 x 4.6mm
1504F410PS100	ProntoSIL 120-10-DIOL 10um 150 x 4.0mm



PART NUMBER	DESCRIPTION
1503F410PS100	ProntoSIL 120-10-DIOL 10um 150 x 3.0mm
1502F410PS100	ProntoSIL 120-10-DIOL 10um 150 x 2.0mm
2046F410PS100	ProntoSIL 120-10-DIOL 10um 200 x 4.6mm
2004F410PS100	ProntoSIL 120-10-DIOL 10um 200 x 4.0mm
2003F410PS100	ProntoSIL 120-10-DIOL 10um 200 x 3.0mm
2002F410PS100	ProntoSIL 120-10-DIOL 10um 200 x 2.0mm
2546F410PS100	ProntoSIL 120-10-DIOL 10um 250 x 4.6mm
2504F410PS100	ProntoSIL 120-10-DIOL 10um 250 x 4.0mm
2503F410PS100	ProntoSIL 120-10-DIOL 10um 250 x 3.0mm
2502F410PS100	ProntoSIL 120-10-DIOL 10um 250 x 2.0mm
3046F410PS100	ProntoSIL 120-10-DIOL 10um 300 x 4.6mm
3004F410PS100	ProntoSIL 120-10-DIOL 10um 300 x 4.0mm
3003F410PS100	ProntoSIL 120-10-DIOL 10um 300 x 3.0mm
3002F410PS100	ProntoSIL 120-10-DIOL 10um 300 x 2.0mm
10P4F410PS100	ProntoSIL 120-10-DIOL PEEK column 10um 100 x 4.0mm
12P4F410PS100	ProntoSIL 120-10-DIOL PEEK column 10um 125 x 4.0mm
15P4F410PS100	ProntoSIL 120-10-DIOL PEEK column 10um 150 x 4.0mm
20P4F410PS100	ProntoSIL 120-10-DIOL PEEK column 10um 200 x 4.0mm
25P4F410PS100	ProntoSIL 120-10-DIOL PEEK column 10um 250 x 4.0mm
30P4F410PS100	ProntoSIL 120-10-DIOL PEEK column 10um 300 x 4.0mm

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