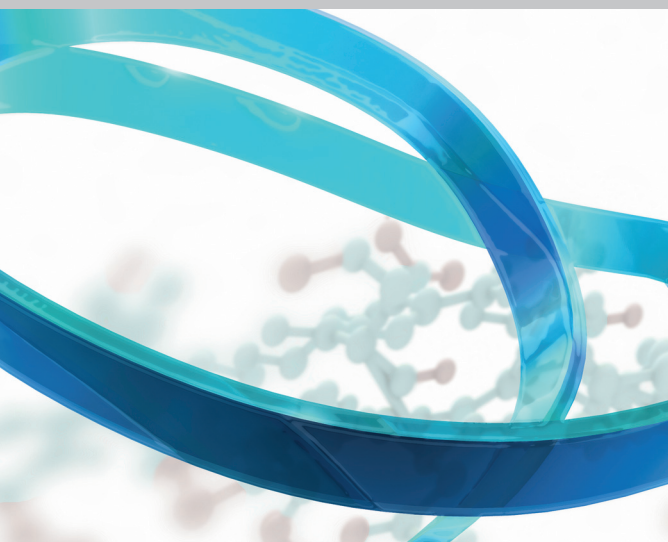


- 75 μm and 150 μm ID for greater sensitivity
- Wide choice of stationary phases for alternative selectivity options
- Ideal for LC/MS applications

Nanoflow Columns

High sensitivity, flexible silica columns



Thermo Scientific columns are available in nanobore formats for nanospray LC/MS applications. At flow rates of nL/min versus mL/min, they offer higher sensitivity with greater signal-to-noise ratio than traditional capillary columns used with electrospray.

Column Hardware

IntegraFrit™ columns have an integral high-porosity frit, behind which is the packed chromatography bed. The frit end of the fused-silica column is polished flat to ensure a clean connection to the emitter of choice.

PicoFrit® columns eliminate post-column permeation losses by spraying directly from the column tapered end, boosting MS performance compared to that provided by a column attached to a tip.

Stationary Phases

Thermo Scientific nanobore columns are available in a wide variety of packing materials to suit the wide diversity of biomolecules.

BioBasic columns offer silica in C18, C8 and C4 plus SCX phase, all with a 300Å pore size for larger biomolecules.

Hypersil GOLD columns offer outstanding peak shape plus 1.9 μm particles for enhanced speed and efficiency

Hypersil GOLD aQ is a polar endcapped C18 stationary phase that can be used with 100% aqueous mobile phases.

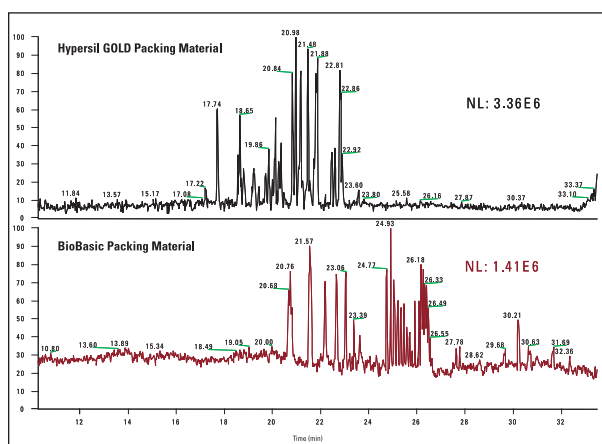
Hypersil GOLD PFP offers alternative selectivity, particularly where an analyte contains an aromatic ring.

For very polar molecules such as oligosaccharides, nucleotides, nucleosides and hydrophilic peptides, Hypercarb offers retention and separation without derivatization.

High Sensitivity Analysis

Analytes can be detected, identified and quantified at femtomole levels and below.

The figure to the left shows base peak chromatograms for only 200 amol of a yeast 5 protein digest mixture using 1.9 μm Hypersil GOLD and 5 μm BioBasic 18 materials packed into 50 mm x 0.075 mm PicoFrit columns.



Base peak chromatograms for 200 amol of a yeast 5 protein digest on 1.9 μm Hypersil GOLD and BioBasic PicoFrit columns

Hypersil GOLD Nanobore Columns

Particle Size	Length (mm)	IntegraFrit, 75 µm ID	IntegraFrit Multipack, 75 µm ID	IntegraFrit, 150 µm ID	IntegraFrit Multipack, 150 µm ID
1.9 µm	10	25002-017563	25002-017564 (4/pk)	25002-011563	25002-011564 (4/pk)
	50	25002-057563	25002-057564 (3/pk)	25002-051563	25002-051564 (3/pk)
5 µm	50	25005-057563	25005-057564 (3/pk)	25005-051563	25005-051564 (3/pk)
	100	25005-107563	25005-107564 (3/pk)	25005-101563	25005-101564 (3/pk)
		PicoFrit, 75 µm ID x 15 µm tip	PicoFrit Multipack, 75 µm ID x 15 µm Tip		
1.9 µm	10	25002-017581	25002-017583 (4/pk)		
	50	25002-057581	25002-057582 (3/pk)		
5 µm	50	25005-057581	25005-057582 (3/pk)		
	100	25005-107581	25005-107582 (3/pk)		

Hypersil GOLD aQ Nanobore Columns

Particle Size	Length (mm)	IntegraFrit, 75 µm ID	IntegraFrit Multipack, 75 µm ID	IntegraFrit, 150 µm ID	IntegraFrit Multipack, 150 µm ID
1.9 µm	10	25302-017563	25302-017564 (4/pk)	25302-011563	25302-011564 (4/pk)
	50	25302-057563	25302-057564 (3/pk)	25302-051563	25302-051564 (3/pk)
5 µm	50	25305-057563	25305-057564 (3/pk)	25305-051563	25305-051564 (3/pk)
	100	25305-107563	25305-107564 (3/pk)	25305-101563	25305-101564 (3/pk)
		PicoFrit, 75 µm ID x 15 µm Tip	PicoFrit Multipack, 75 µm ID x 15 µm Tip		
1.9 µm	10	25302-017581	25302-017583 (4/pk)		
	50	25302-057581	25302-057582 (3/pk)		
5 µm	50	25305-057581	25305-057582 (3/pk)		
	100	25305-107581	25305-107582 (3/pk)		

Hypersil GOLD PFP Nanobore Columns

Particle Size	Length (mm)	IntegraFrit, 75 µm ID	IntegraFrit Multipack, 75 µm ID	IntegraFrit, 150 µm ID	IntegraFrit Multipack, 150 µm ID
1.9 µm	10	25402-017563	25402-017564 (4/pk)	25402-011563	25402-011564 (4/pk)
	50	25402-057563	25402-057564 (3/pk)	25402-051563	25402-051564 (3/pk)
5 µm	50	25405-057563	25405-057564 (3/pk)	25405-051563	25405-051564 (3/pk)
	100	25405-107563	25405-107564 (3/pk)	25405-101563	25405-101564 (3/pk)
		PicoFrit, 75 µm ID x 15 µm Tip	PicoFrit Multipack, 75 µm ID x 15 µm Tip		
1.9 µm	10	25402-017581	25402-017583 (4/pk)		
	50	25402-057581	25402-057582 (3/pk)		
5 µm	50	25405-057581	25405-057582 (3/pk)		
	100	25405-107581	25405-107582 (3/pk)		

BioBasic Nanobore Columns

Chemistry	Size (µm)	Particle Length (mm)	IntegraFrit, 75 µm ID	IntegraFrit Multipack, 75 µm ID	IntegraFrit, 150 µm ID	IntegraFrit Multipack, 150 µm ID
BioBasic 18	5	50	72105-057563	72105-057564 (3/pk)	72105-051563	72105-051564 (3/pk)
		100	72105-107563	72105-107564 (3/pk)	72105-101563	72105-101564 (3/pk)
BioBasic 8	5	50	72205-057563	72205-057564 (3/pk)	72205-051563	72205-051564 (3/pk)
		100	72205-107563	72205-107564 (3/pk)	72205-101563	72205-101564 (3/pk)
BioBasic 4	5	50	72305-057563	72305-057564 (3/pk)	72305-051563	72305-051564 (3/pk)
		100	72305-107563	72305-107564 (3/pk)	72305-101563	72305-101564 (3/pk)
BioBasic SCX	5	50	73205-057563	73205-057564 (3/pk)	73205-051563	73205-051564 (3/pk)
		100	73205-107563	73205-107564 (3/pk)	73205-101563	73205-101564 (3/pk)
		PicoFrit, 75 µm ID x 15 µm Tip	PicoFrit Multipack, 75 µm ID x 15 µm Tip			
BioBasic 18	5	50	72105-057581	72105-057582 (3/pk)		
		100	72105-107581	72105-107582 (3/pk)		
BioBasic 8	5	50	72205-057581	72205-057582 (3/pk)		
		100	72205-107581	72205-107582 (3/pk)		
BioBasic 4	5	50	72305-057581	72305-057582 (3/pk)		
		100	72305-107581	72305-107582 (3/pk)		
BioBasic SCX	5	50	73205-057581	73205-057582 (3/pk)		
		100	73205-107581	73205-107582 (3/pk)		

Hypercarb Nanobore Columns

Particle Size	Length (mm)	IntegraFrit, 75 µm ID	IntegraFrit Multipack, 75 µm ID	IntegraFrit, 150 µm ID	IntegraFrit Multipack, 150 µm ID
5 µm	10	35005-017563	35005-017564 (4/pk)	35005-011563	35005-011564 (4/pk)
	50	35005-057563	35005-057564 (3/pk)	35005-051563	35005-051564 (3/pk)
		PicoFrit, 75 µm ID x 15 µm Tip	PicoFrit Multipack, 75 µm ID x 15 µm Tip		
5 µm	10	35005-017581	35005-017583 (4/pk)		
	50	35005-057581	35005-057582 (3/pk)		

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PS20423_E 02/08M

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