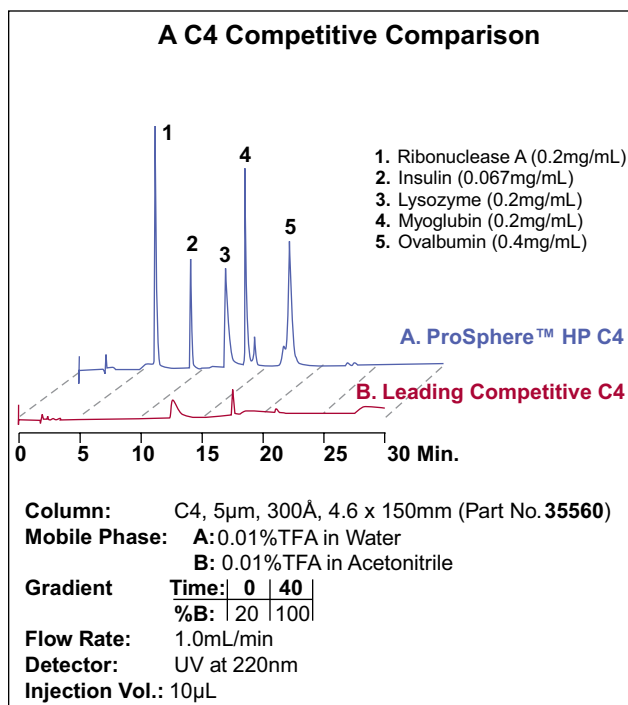


# Dr.Maisch GmbH

- High recoveries at low sample concentrations and low TFA concentrations
- Use for protein, peptides, sequencing, nucleic acid fragments
- pH range 2–7.5

These columns produce sharp symmetrical peaks even for basic biomolecules. The 300Å pores allow access of large proteins while still maintaining high resolution of small peptides.

hplc columns | largemolecule



Even at very low concentrations of TFA, ProSphere™ HP C4 exhibits excellent recoveries; significantly better than a leading competitive C4 column.

# ProSphere™ HP 300Å Columns

## ProSphere™ HP 300Å HPLC Columns

Packing	Format	i.d. x Length	Part No.
C18, 3µm*	Capillary	0.150 x 50mm	35510
	Capillary	0.150 x 150mm	35423
	Capillary	0.150 x 150mm	35516
	Capillary	0.300 x 50mm	35511
	Capillary	0.300 x 100mm	35424
	Capillary	0.300 x 150mm	35517
	Solvent Reducer	3.0 x 50mm	35512
	Solvent Reducer	3.0 x 150mm	35518
	Analytical	4.6 x 50mm	35513
	Analytical	4.6 x 150mm	35520
C18, 5µm	Solvent Reducer	3.0 x 150mm	35519
	Solvent Reducer	3.0 x 250mm	35522
	Analytical	4.6 x 150mm	35521
	Analytical	4.6 x 250mm	35523
C4, 3µm*	Capillary	0.150 x 50mm	35533
	Capillary	0.150 x 150mm	35464
	Capillary	0.150 x 150mm	35539
	Capillary	0.300 x 50mm	35534
	Capillary	0.300 x 100mm	35465
	Capillary	0.300 x 150mm	35545
	Solvent Reducer	3.0 x 50mm	35535
	Solvent Reducer	3.0 x 150mm	35547
	Analytical	4.6 x 50mm	35536
	Analytical	4.6 x 150mm	35549
C4, 5µm	Solvent Reducer	3.0 x 150mm	35548
	Solvent Reducer	3.0 x 250mm	35561
	Analytical	4.6 x 150mm	35560
	Analytical	4.6 x 250mm	35562

\*5µm, 10µm particles and other dimensions are also available.

## ProSphere™ HP 300Å All-Guard™ Cartridges\*

Packing	i.d. x Length	Qty.	Part No.
300Å C18, 5µm	3.0 x 7.5mm	3	35526
	4.6 x 7.5mm	3	35527
HP C18, 3µm	0.150 x 10mm	—	22668
Capillary Guard**	0.300 x 10mm	—	22669
300Å C4, 5µm*	3.0 x 7.5mm	3	35565
	4.6 x 7.5mm	3	35566
HP C4 Capillary Guard**	0.150 x 10mm	—	22678
	0.300 x 10mm	—	22679
All-Guard™ Cartridge Holder (Includes Direct-Connect Column Coupler)		ea	80101
Capillary Guard Cartridge Holder			
Guard Holder for 0.100mm and 0.150mm Guards		ea	GR-3710E
Guard Holder for 0.300mm and 0.500mm Guards		ea	GR-3710A

\*All-Guard™ holder required. Other particle sizes available.  
 \*\*5µm, 10µm particles and other dimensions are also available.

Table 1—Percent Protein Recovery at Low Sample Concentration

Phase	Insulin		Ribonuclease A		Lysozyme		Bovine Serum Albumin		Human Serum Albumin	
	0.02mg/mL	0.4mg/mL	0.02mg/mL	0.4mg/mL	0.02mg/mL	0.4mg/mL	0.02mg/mL	0.4mg/mL	0.02mg/mL	0.4mg/mL
ProSphere™ HP C18	68	94	74	94	45	87	65	90	66	87
A Leading Competitive C18	13	90	0	84	0	74	0	63	0	63
ProSphere™ HP C4	79	95	79	94	64	92	74	93	72	89
A Leading Competitive C4	31	93	53	91	20	75	0	53	0	68

Every column has good recoveries with high sample concentrations. How does your column compare at low sample concentrations? ProSphere™ HP 300Å phases outperform a leading competitor at 0.02mg/mL.

## related products

Looking for ProSphere™ prep columns?

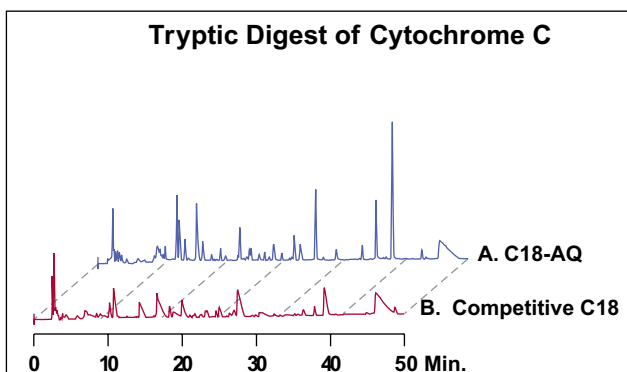
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## ProSphere™ HP C18-AQ Columns

### Ideal for Peptide Mapping

- Stable from 100% aqueous to 100% organic mobile phases
- Compatible with a broad range of LC/MS compatible mobile phases

ProSphere™ HP C18-AQ Specifications	
Base Material	Silica
Particle Size	3µm, 5µm
Pore Size	100Å
pH Range	2–8



**Column:** 5µm, 4.6 x 150mm (Part No.35579)  
**Mobile Phase:** A: 5mM Acetic Acid in Water  
 B: 5mM Acetic Acid in Acetonitrile  
**Gradient:**

Time	0	50
%B:	0	40

  
**Flow Rate:** 0.8mL/min  
**Detector:** UV at 220nm  
**Column Temp:** 35°C

This water-wettable phase is ideally suited for LC/MS and delivers more peaks than traditional C18 phases.

### ProSphere™ HP C18-AQ HPLC Columns

Packing	Format	i.d. x Length	Part No.
C18-AQ, 3µm	Capillary	150µm x 50mm	35568
	Capillary	150µm x 150mm	35574
	Capillary	300µm x 50mm	35569
	Capillary	300µm x 150mm	35575
	Solvent Reducer	3.0 x 50mm	35570
	Solvent Reducer	3.0 x 150mm	35576
C18-AQ, 5µm	Analytical	4.6 x 50mm	35571
	Analytical	4.6 x 150mm	35578
	Solvent Reducer	3.0 x 150mm	35577
	Solvent Reducer	3.0 x 250mm	35580
	Analytical	4.6 x 150mm	35579
	Analytical	4.6 x 250mm	35581

### ProSphere™ HP C18-AQ All-Guard™ Cartridges\*

Packing	i.d. x Length	Qty.	Part No.
C18-AQ, 5µm	3.0 x 7.5mm	3	35582
	4.6 x 7.5mm	3	35583
All-Guard™ Cartridge Holder (Includes Direct-Connect™ Column Coupler)		ea	80101

\*All-Guard™ holder required. Other particle sizes available.

## Macrosphere™ GPC Columns

- 7µm GPC phases separate proteins, peptides, and polar synthetic compounds by size-exclusion

Macrosphere™ GPC Exclusion Limits in Daltons		
Pore Size	Included	Excluded
60Å	250	28,000
100Å	2500	350,000
150Å	4000	500,000
300Å	7500	1,200,000

### Macrosphere™ GPC Columns

Packing	Format	i.d. x Length	Standard Part No.	Waters® Fittings Part No.
GPC 60Å	Analytical	4.6 x 250mm	88129	88130
	Semi-Prep	7.5 x 300mm	88175	—
GPC 100Å	Analytical	4.6 x 250mm	88133	88134
	Semi-Prep	7.5 x 300mm	88177	—
GPC 150Å	Analytical	4.6 x 250mm	88137	88138
	Semi-Prep	7.5 x 300mm	88179	—
GPC 300Å	Analytical	4.6 x 250mm	88141	88142
	Semi-Prep	7.5 x 300mm	88181	—

### Macrosphere™ GPC All-Guard™ Cartridges\*

Packing, 5µm	i.d. x Length	Qty.	Part No.
GPC	4.6 x 7.5mm	3	96133
All-Guard™ Cartridge Holder (Includes Direct-Connect™ Column Coupler)		ea	80101

\*All-Guard™ holder required. Other particle sizes available.

## Macrosphere™ Ion-Exchange Columns

- 300Å weak and strong ion-exchange phases separate proteins, enzymes, and other biologicals

Macrosphere™ Ion-Exchange Specifications		
	Exchange Group	Exchange Capacity
WAX	Diethylaminoethane	0.13 meq/gram
WCX	Carboxylic Acid	0.49 meq/gram
SAX	Quaternary Ammonium	0.14 meq/gram
SCX	Sulfonic Acid	0.50 meq/gram

### Macrosphere™ Ion-Exchange Columns

Packing	Format	i.d. x Length	Part No.
WAX, 7µm	Analytical	4.6 x 150mm	71151
	Analytical	4.6 x 250mm	71154
WCX, 7µm	Analytical	4.6 x 150mm	71157
	Analytical	4.6 x 250mm	71160
SAX, 7µm	Analytical	4.6 x 150mm	72303
	Analytical	4.6 x 250mm	72603
SCX, 7µm	Analytical	4.6 x 150mm	72308
	Analytical	4.6 x 250mm	72608

### Macrosphere™ Ion-Exchange All-Guard™ Cartridges\*

Packing	i.d. x Length	Qty.	Part No.
WAX, 5µm	4.6 x 7.5mm	3	96135
WCX, 5µm	4.6 x 7.5mm	3	96137
SAX, 5µm	4.6 x 7.5mm	3	96139
SCX, 5µm	4.6 x 7.5mm	3	96141
All-Guard™ Cartridge Holder (Includes Direct-Connect™ Column Coupler)		ea	80101

\*All-Guard™ holder required. Other particle sizes available.