

Vydac® TP Columns

VYDAC



Industry Standard for Polypeptide Separations

- Referred in over 9000 patents, Vydac® 300Å TP is the industry-standard, for peptide, protein, and large molecule separations
- Polymeric bonded phases have exceptionally long column lifetime and negligible phase leaching
- Extensive applications library based on over two decade's experience

Vydac® TP reversed-phase material consists of aliphatic groups bonded to the surface of 300Å pore diameter silica. The large pores of the 300Å TP silica give polypeptide molecules complete access to the interior of the silica pores. The unique process by which we manufacture Vydac® TP silica results in high-purity, synthetic silica with carefully controlled characteristics. Vydac® TP silica is the standard that has defined large pore HPLC silica for polypeptide separations for nearly two decades.

Vydac® TP Columns										
Phase	Base Material	Particle Shape	Particle Size	Pore Size	Surface Area	Carbon Load	Phase Type	Endcapped?	USP L-code	
101TP Sil	Silica	Spheroidal	5, 10, 10–15, 15–20µm	300Å	70–110m ² /g	—	unbonded	—	L3	
201TP C18	Silica	Spheroidal	5, 7, 10, 10–15, 15–20µm	300Å	70–90m ² /g	8%	Polymeric	No	L1	
202TP C18	Silica	Spheroidal	3, 5, 10µm	300Å	60–90m ² /g	9%	Polymeric	No	L1	
208TP C8	Silica	Spheroidal	3, 5, 7, 10, 10–15, 15–20µm	300Å	60–110m ² /g	5%	Polymeric	Yes	L7	
214TP C4	Silica	Spheroidal	3, 5, 7, 10, 10–15, 15–20µm	300Å	60–110m ² /g	3%	Polymeric	Yes	L26	
218TP C18	Silica	Spheroidal	3, 5, 7, 10, 10–15, 15–20µm	300Å	60–110m ² /g	8%	Polymeric	Yes	L1	
219TP Di-Phe	Silica	Spheroidal	3, 5, 7, 10, 10–15, 15–20µm	300Å	60–110m ² /g	4%	Polymeric	Yes	—	
238TP C18	Silica	Spheroidal	3, 5, 7, 10, 10–15, 15–20µm	300Å	60–110m ² /g	4%	Monomeric	Yes	L1	

Vydac® 218TP C18 Columns

Vydac® 218TP is a polymerically bonded endcapped n-octadecyl reversed-phase based on 300Å TP silica.

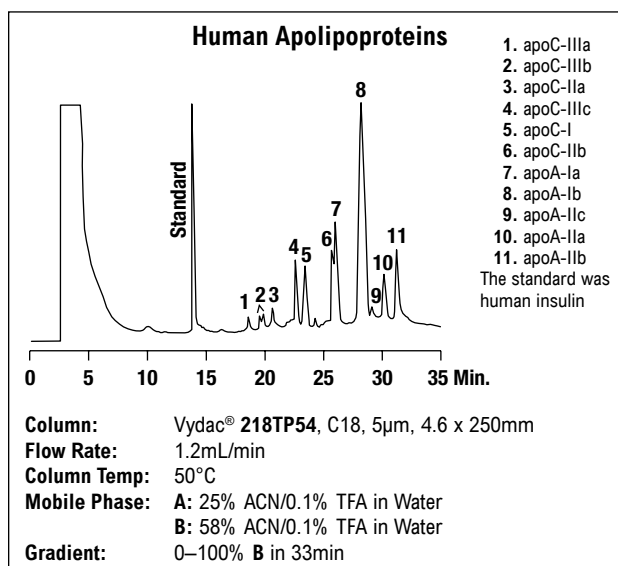
Applications

Vydac® 218TP reversed-phase columns are recommended for the separation of:

- Small polypeptides less than 4000–5000 MW
- Enzymatic digest fragments
- Natural and synthetic peptides
- Multi-ring compounds

Specific examples include:

- Tryptic digests
- *S. aureus* V8 digests
- Synthetic peptides
- Natural peptides
- Peptide studies



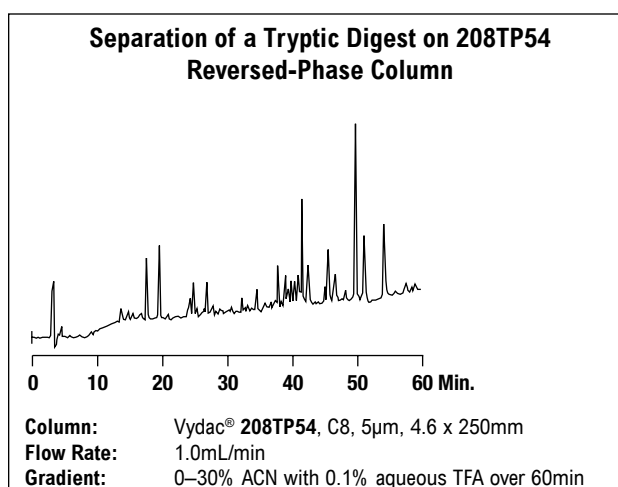
Vydac® 208TP C8 Reversed-Phase

Vydac® 208TP is a polymerically bonded endcapped n-octyl reversed-phase based on 300Å TP silica.

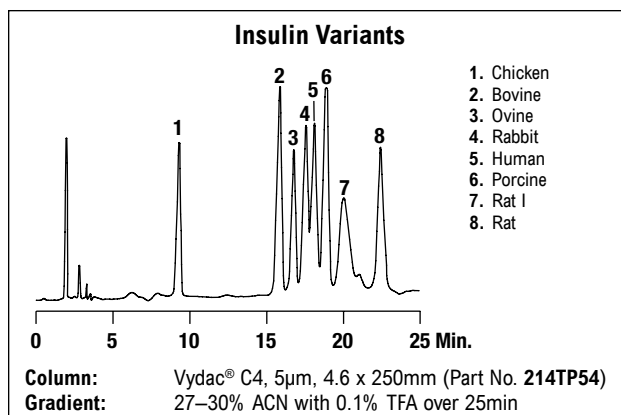
Applications

Vydac® 208TP reversed-phase columns are recommended for the separation of:

- Polypeptides up to 10,000–20,000 MW
- Enzymatic digest fragments
- Natural and synthetic peptides



- Glycoproteins
- Hemoglobin variants
- Histones
- Human growth hormone
- Insulin variants
- Membrane proteins



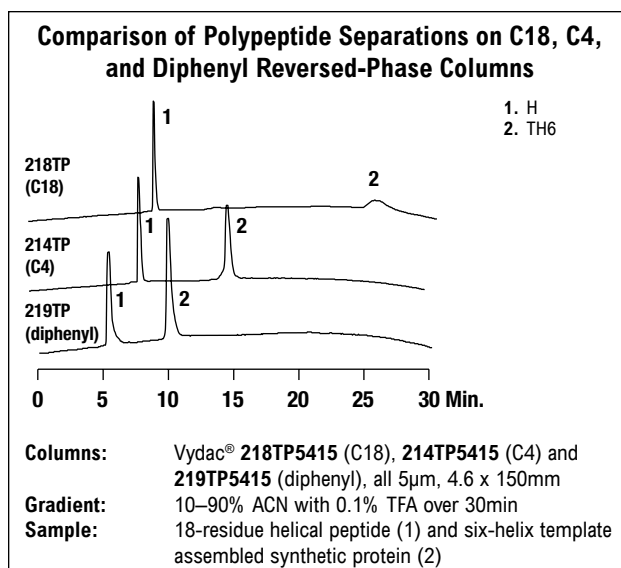
From J. Rivier and R. McClintock, *J. Chrom.* 268, 112-119 (1983).

Vydac® 219TP Diphenyl Reversed-Phase

Vydac® 219TP is a polymerically bonded endcapped diphenyl reversed-phase based on 300Å TP silica. It combines moderate retentivity with unique selectivity.

Applications

- Polypeptides with aromatic side chains
- Large, hydrophobic proteins
- Membrane-spanning peptides
- Lipid peptides
- Fusion proteins from inclusion bodies

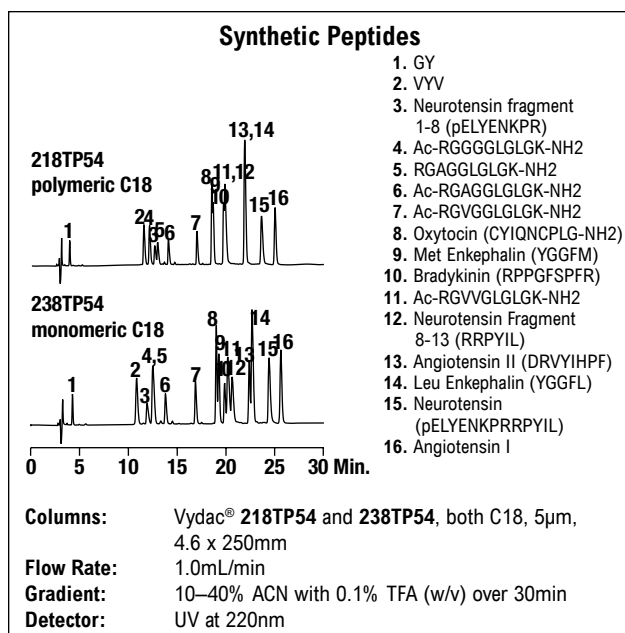


Vydac® 238TP C18 Reversed-Phase

Vydac® 238TP is a monomerically bonded endcapped n-octadecyl reversed-phase based on 300Å TP silica.

Applications

Monomerically bonded C18 provides an alternative to 218TP polymeric C18 with subtle differences in selectivity. The combination of these adsorbents can reveal analytes that may be hidden on a single C18 column.



Vydac® TP Columns

Vydac® TP Analytical Columns

Particle Size	Columns					Recommended Guards	
	i.d.	50mm	100mm	150mm	250mm	Guard Kit ¹	Guard Cartridge ²
218TP C18							
3µm	4.6mm	218TP3405	218TP3410	—	—	218GK34	218GD34
5µm	1.0mm	218TP5105	218TP5110	218TP5115	218TP51	218GK51	218GD51
	2.1mm	218TP5205	218TP5210	218TP5215	218TP52	218GK52	218GD52
	3.2mm	218TP5305	218TP5310	218TP5315	218TP53	218GK54	218GD54
	4.6mm	218TP5405	218TP5410	218TP5415	218TP54	218GK54	218GD54
208TP C8							
3µm	4.6mm	208TP3405	208TP3410	—	—	208GK34	208GD34
5µm	1.0mm	208TP5105	208TP5110	208TP5115	208TP51	208GK51	208GD51
	2.1mm	208TP5205	208TP5210	208TP5215	208TP52	208GK52	208GD52
	3.2mm	208TP5305	208TP5310	208TP5315	208TP53	208GK54	208GD54
	4.6mm	208TP5405	208TP5410	208TP5415	208TP54	208GK54	208GD54
214TP C4							
3µm	4.6mm	214TP3405	214TP3410	—	—	214GK34	214GD34
5µm	1.0mm	214TP5105	214TP5110	214TP5115	214TP51	214GK51	214GD51
	2.1mm	214TP5205	214TP5210	214TP5215	214TP52	214GK52	214GD52
	3.2mm	214TP5305	214TP5310	214TP5315	214TP53	214GK54	214GD54
	4.6mm	214TP5405	214TP5410	214TP5415	214TP54	214GK54	214GD54
214ATP C4 Columns							
5µm	2.1mm	—	—	—	214ATP52	—	—
	4.6mm	—	—	—	214ATP54	—	—
219TP Diphenyl							
3µm	4.6mm	219TP3405	219TP3410	—	—	219GK34	219GD34
5µm	1.0mm	219TP5105	219TP5110	219TP5115	219TP51	219GK51	219GD51
	2.1mm	219TP5205	219TP5210	219TP5215	219TP52	219GK52	219GD52
	3.2mm	219TP5305	219TP5310	219TP5315	219TP53	219GK54	219GD54
	4.6mm	219TP5405	219TP5410	219TP5415	219TP54	219GK54	219GD54
238TP C18							
3µm	4.6mm	238TP3405	238TP3410	—	—	238GK34	238GD34
5µm	1.0mm	238TP5105	238TP5110	238TP5115	238TP51	238GK51	238GD51
	2.1mm	238TP5205	238TP5210	238TP5215	238TP52	238GK52	238GD52
	3.2mm	238TP5305	238TP5310	238TP5315	238TP53	238GK54	238GD54
	4.6mm	238TP5405	238TP5410	238TP5415	238TP54	238GK54	238GD54

NOTE: Additional column diameters and lengths are available on request. Please contact Grace Davison Discovery Sciences to discuss your requirements.
¹A guard kit includes a holder and one guard cartridge; ²Guard cartridge units include two guard cartridges.

