

TSK-GEL® Reversed Phase Columns



SUPELCO

Reversed phase liquid chromatography (RPLC) is the preferred method for analysis and purification of polar and nonpolar compounds that are soluble in mixtures of water and organic solvents. Very fast kinetics and quantitative protein recovery at submicrogram loading are characteristic of nonporous resin-based TSKgel Octadecyl-NPR columns.

The lower C18 and phenyl coverage on TSKgel Octadecyl-4PW and TSKgel Phenyl-5PW RP columns result in weaker retention than on silica-based reversed phase columns. These columns are not recommended for applications involving small molecular weight compounds, but the large pores in these packings (500Å and 1000Å, respectively) make them suitable for peptide and protein separations. The very large 1000Å pores allow unhindered access to proteins and other biomolecules with molecular weights as large as 350,000 daltons.

TSKgel Oligo-DNA RP silica-based columns are designed for purification and analysis of oligonucleotides, RNAs, and DNA fragments. Oligonucleotides up to 500 units can be purified on these columns.

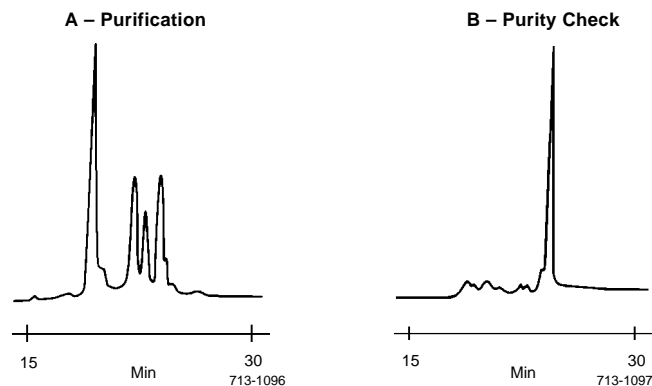
Technical Information:

Bulletin 862—TSK-GEL Nonporous Resin Columns.

TSK-GEL is a registered trademark of Tosoh Corp.

Protein Purification and Purity Check

Column: **TSKgel Phenyl-5PW-RP**
7.5cm x 4.6mm, 10µm particles
 Cat. No.: **8-08043**
 Mobile Phase: 5% to 20% CH₃CN in 0.05% TFA over 2 min, then
 A – to 80% CH₃CN in 0.05% TFA in 48 min
 B – to 60% CH₃CN in 0.05% TFA in 32 min
 Flow Rate: 1mL/min
 Det.: UV, 220nm
 Inj.: A – 40µg lactate dehydrogenase in 100µL initial mobile phase
 B – purity check of fraction from A



Characteristics of TSK-GEL Reversed Phase Packings

Characteristic	TSK-GEL Column			
	Oligo-DNA RP	Octadecyl-NPR	Octadecyl-4PW	Phenyl-5PW RP*
Matrix	silica	hydrophilic resin	hydrophilic resin	hydrophilic resin
Particle Size (µm)	5	2.5	7	10
Pore Size (Å)	250	nonporous	500	1000
% Carbon	10	—	—	—
Endcapping	no	—	—	—
Functional Group	C18 alkyl phase, monomeric	C18 alkyl, monomeric	C18 alkyl, monomeric	phenyl, monomeric
Ligand Density	—	~1meq/mL	~1meq/mL	~1meq/mL
pH Range	2 - 7.5	2 - 12	2 - 12	2 - 12

*Bulk packing material has 20µm particle size.

Ordering Information: TSK-GEL RPLC Columns

Column	Packing Particle Size (µm)	Column Dimensions		Cat. No.
		Length (cm)	Diameter (mm)	
Silica-Based Columns				
TSKgel Oligo-DNA RP	5	15	4.6	8-13352
TSKgel Oligo-DNA RP	5	15	7.8	8-13353
Resin-Based Columns				
TSKgel Octadecyl-NPR	2.5	3.5	4.6	8-14005
TSKgel Octadecyl-4PW	7	15	4.6	8-13351
TSKgel Phenyl-5PW RP	10	7.5	4.6	8-08043
TSKgel Phenyl-5PW RP packing (5mL)	20	—	—	8-14019
TSKgel Guardgel Holder	—	1	6	8-03432

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