TSK-GEL® Tresyl-5PW Products

Part Numbers:	14455, 6.0mm ID x 4.0cm, 10μm 14456, 7.5mm ID x 7.5cm, 10μm	16208, Tresyl-5PW Guardgel, 2 grams, 10μm

This sheet contains the recommended operating conditions and the specifications for TSK-GEL Tresyl-5PW columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS	
1. Shipping Solvent:	Acetone. Wash the column with DI water before equilibrating with the coupling buffer.
2. Max. Flow Rate:	1.0mL/min (6.0mm ID x 4.0cm) 1.2mL/min (7.5mm ID x 7.5cm)
NOTE:	a) Normal flow rates are 50 - 75% of the maximum recommended flow rates. b) When using a viscous buffer, reduce the flow rate so as not to exceed the maximum allowable pressure drop over the column.
3. Coupling Flow Rate:	0.2 - 0.5mL/min (6.0mm ID x 4.0cm) 0.5 - 1.0mL/min (7.5mm ID x 7.5cm)
4. Max. Pressure:	1MPa
5. pH Range:	2 - 12 (pH above 12 can only be used for a short time)
6. Salt Conc.:	≤ 3 Molar
7. Organic Conc.:	≤ 20%
8. Temperature:	≥ 0°C
9. Coupling Buffer:	0.5 - 1.0M K-phosphate (pH 8.0), or other non-amine containing buffers.
10. Blocking Buffer:	0.1M Tris-HCl (pH 8.0), or other amine containing buffers.
11. Cleaning Solvents:	The stability of the ligand determines the type and strength of the cleaning solvent. The TSk-GEL -5PW matrix can be cleaned by 5 - 10 injections of up to 1/5th of the column volume with 0.1 - 0.2M NaOH, 20 - 40% acetic acid, aqueous buffer in 20% organic, or urea or nonionic sufactant in buffer.
12. Storage:	Store the column in a neutal pH buffer containing 0.02% NaN_3 at a temperature between 4°C and 10°C when it will not be used the next day. For overnight storage flush the column with the mobile phase at 0.2mL/min. Prevent air from entering the column!
B. SPECIFICATIONS	

Unlike other TSK-GEL columns, the chromatographic performance of TSK-GEL Tresyl-5PW columns is not tested. Following their manufacturing it is ensured, however, that the pressure drop over the column at the maximum recommended flow rate (see above) is less than the maximum allowable pressure.

Batch Test - Each lot of TSK-GEL Tresyl-5PW packing has passed the specification that 1 gram of dry gel binds at least 60mg soybean trypsin inhibitor (STI) under the following conditions:

Immobilization - Suspend 0.5 gram of freeze-dried TSK-GEL Tresyl-5PW in 4mL of a solution containing 0.1M $NaHCO_3$, 0.5M NaCl and 40mg soybean trypsin inhibitor (Sigma, Type 1-S). Incubate the suspension for 1 day at 25°C while shaking.

Analysis - Determine the peak height of an injection of the STI supernatant by size exclusion chromatography.
Column: TSKgel 3000SW_{XL}, 7.8mm ID x 30cm, Mobile Phase: 0.1M phosphate + 0.2M NaCl (pH 6.8), Flow Rate: 0.8mL/min, Sample: 5μl supernatant, Detection: UV@220nm.

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