

TSKgel® SW mAb Products

Part Numbers:	22854, TSKgel SuperSW mAb HR, 4 µm, 7.8 mm ID x 30 cm	22857, TSKgel guard column for TSKgel SuperSW mAb HR, 4 µm, 6.0 mm ID x 4 cm
	22855, TSKgel SuperSW mAb HTP, 4 µm, 4.6 mm ID x 15 cm	22858, TSKgel guard column for TSKgel SuperSW mAb HTP, 4 µm, 3.0 mm ID x 2 cm
	22856, TSKgel UltraSW Aggregate, 3 µm, 7.8 mm ID x 30 cm	22859, TSKgel guard column for TSKgel UltraSW Aggregate, 3 µm, 6.0 mm ID x 4 cm

This sheet contains the recommended operating conditions and the specifications for TSKgel SW mAb columns and guard columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS	
1. Shipping Solvent:	0.05% NaN ₃ and 0.1 mol/L Na ₂ SO ₄ in 0.1 mol/L phosphate buffer, pH 6.7
2. Standard Flow Rate:	0.5–1.0 mL/min (TSKgel SuperSW mAb HR) 0.10–0.35 mL/min (TSKgel SuperSW mAb HTP) 0.5–1.0 mL/min (TSKgel UltraSW Aggregate)
3. Max Flow Rate:	1.0 mL/min (TSKgel SuperSW mAb HR) 0.50 mL/min (TSKgel SuperSW mAb HTP) 1.0 mL/min (TSKgel UltraSW Aggregate)
NOTE:	When a buffer with high viscosity is used, the maximum flow rate may have to be reduced so as not to exceed the maximum pressure drop. When changing solvents, use a flow rate equal to 25% of the maximum flow rate.
4. Max. Pressure:	12.0 Mpa (TSKgel SuperSW mAb HR) 8.0 Mpa (TSKgel SuperSW mAb HTP) 12.0 Mpa (TSKgel UltraSW Aggregate)
5. Temperature:	10 – 30 °C. Reduce flow rate when operating below 10 °C.
6. pH Range:	2.5 – 7.5
7. Salt Concentration:	≤ 0.5 mol/L
8. Organic Concentration:	0 - 20% for aqueous soluble organic solvents. Make gradual solvent changes using a shallow gradient at low flow rate.
9. Cleaning Solvents:	1. Turn the column in reverse flow direction and run at half the maximum flow rate. 2. Clean with 5 column volumes (CV) of 1 mol/L sodium chloride, pH 7.0 3. Clean with 5CV of ultra-pure water. 4. Clean with 5CV of 20% acetonitrile. 5. Clean with 5CV of ultra-pure water. 6. Turn column in normal flow direction and equilibrate in mobile phase for at least 45 minutes
10. Storage:	1. Procedure: a. After disconnecting the column from the instrument, wash the instrument tubing with distilled water or ion exchange water. b. Replace the column contents with the shipping solvent, disconnect the column from the instrument, seal both ends with the end plugs, and store. Use the solvent replacement flow rate during cleaning and when replacing with the shipping solvent. 2. Storage temperature: 15 to 30 °C
11. Column Protection:	The use of guard columns is recommended to prolong the life of the analytical column. Guard column life depends greatly on sample cleanliness. As a general rule, guard columns should be replaced after every 30-40 sample injections, when the peaks become excessively wide, or when the peaks show splitting.

B. SPECIFICATIONS	
The performance of TSKgel SW mAb columns is tested under the conditions described in the data sheet. All columns have passed the following quality control specifications:	
1. Number of Theoretical Plates (N):	> 30,000 (TSKgel SuperSW mAb HR) > 15,000 (TSKgel SuperSW mAb HTP) > 35,000 (TSKgel UltraSW Aggregate)
2. Asymmetry Factor (AF):	0.8 - 1.4 (TSKgel SuperSW mAb HR) 1.2 - 1.8 (TSKgel SuperSW mAb HTP) 1.2 – 1.8 (TSKgel UltraSW Aggregate)

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