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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel® BioAssist DS Products

Part Numbers:	21463	4.6 mm ID x 15.0 cm L	PEEK Column	15 µm
	21464	10.0 mm ID x 15.0 cm L	PEEK Column	15 µm

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

A. OPERATING CONDITIONS

1. Shipping Solvent: Water

- Max. Flow Rate:

1.0 mL/min	4.6 mm ID x 15.0 cm L	4°C
1.5 mL/min	4.6 mm ID x 15.0 cm L	25°C
3.0 mL/min	10.0 mm ID x 15.0 cm L	4°C
4.0 mL/min	10.0 mm ID x 15.0 cm L	25°C

- 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.

- Standard Flow Rate:

0.8 mL/min	4.6 mm ID x 15.0 cm L	4°C
1.2 mL/min	4.6 mm ID x 15.0 cm L	25°C
2.4 mL/min	10.0 mm ID x 15.0 cm L	4°C
3.2 mL/min	10.0 mm ID x 15.0 cm L	25°C
4. Max. Pressure: 1.3 MPa
5. pH Range:

3 - 12	When used within a week
4 - 11	When used over a week
6. Organic Conc.: ≤ 30% Methanol, Ethanol, Acetonitrile, Formic Acid; Dimethylsulfoxide; ect.
7. Temperature: 4 - 30°C
9. Cleaning Solvents:

(1) 0.1 - 0.5 M NaOH,	
(2) 20 - 40% acetic acid aqueous	
(3) Aqueous buffer in 30% acetonitrile or methanol,	
(4) 0.5 M NaOH + 30% Ethanol	
(5) 8 M Urea, or 6 M Guanidine or nonionic surfactant in buffer.	
(1) 0.1 - 0.2mol/L NaOH, or	
(2) Urea or non-ionic surfactant in buffer, or	
(3) Aqueous buffer in organic solvent, or	
(4) 20 - 40% acetic acid aqueous	

NOTE: Clean the column regularly by injecting up to one column volume 0.1 - 0.5 M NaOH in 250 µL increments. Column cleaning could be also performed in reverse direction at ~ 25 % standard flow rate.

10. Storage: The column can be stored in mobile phase for short periods. For longer term storage, use 20% aqueous ethanol in 20 mM Tris-HCl buffer (pH 8.0). Prevent air from entering the column, and keep it from drying out.
11. Solvent Compatibility: Avoid long term (longer than one month) exposure to concentrated alkali or acid solutions.
12. Connection of Column: Connect the PEEK column with a 10-32 polymer nut and ferrule.

B. SPECIFICATIONS

The performance of **TSKgel** BioAssist DS columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specifications

Number of Theoretical Plates (N):	≥	500
Asymmetry Factor (AF):		0.9 - 1.8