



Im Leuschnerpark 4, 64347 Griesheim, Germany  
 Tel: +49 6155-7043700 Fax: +49 6155-8357900  
 E-Mail: info.tbg@tosoh.com  
 Web: www.tosohbioscience.de

3604 Horizon Drive, Suite 100, King of Prussia, PA 19406, USA  
 Tel: +1 800-366-4875 Fax: +1 610-272-3028  
 E-Mail: info.tbl@tosoh.com  
 Web: www.tosohbioscience.com

## OPERATING CONDITIONS and SPECIFICATIONS

### TSKgel® BioAssistQ

|                      |         |                        |             |              |
|----------------------|---------|------------------------|-------------|--------------|
| <b>Part Numbers:</b> | 0019685 | 4.6 mm ID x 5.0 cm L   | PEEK Column | <b>10 µm</b> |
|                      | 0021410 | 10.0 mm ID x 10.0 cm L | PEEK Column | <b>13 µm</b> |

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

#### A. OPERATING CONDITIONS

1. Shipping Solvent: 20% Ethanol in 20 mM Tris-HCl buffer (pH 8.0, 4.6 mm ID x 5.0 cm L)  
10% Ethanol in 20 mM Tris-HCl buffer (pH 8.0, 10.0 mm ID x 10.0 cm L)
2. Max. Flow Rate: 1.2 mL/min 0019685  
5.0 mL/min 0021410  
**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.
3. Standard Flow Rate: 0.3 - 1.0 mL/min 0019685  
1.0-5.0 mL/min 0021410
4. Max. Pressure: 2.5 MPa
5. pH Range: 2 - 12 less than one month  
3 - 10 more than one month
6. Salt Conc.: ≤ 2.5 Molar
7. Organic Conc.: ≤ 30%
8. Temperature: 4 - 60°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.  
**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 Q 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      | 4.6 mm ID x 5.0 cm L   |
|                                   | 500 - 3000 | 10.0 mm ID x 10.0 cm L |
| Asymmetry Factor (AF):            | 0.9 - 1.8  | 4.6 mm ID x 5.0 cm L   |
|                                   | 0.8 - 1.8  | 10.0 mm ID x 10.0 cm L |