TSKgel® SP-NPR Products

Column: 0013076, 4.6mm ID x 3.5cm, 2.5μm

Small Ion Capacity: >0.1 eq**/L**
Counter Ion: Na^+

Accessories:

0014594, Pre-Injector Membrane Filter Holder, SS
0006280, 13mm Nylon Membrane Filter, 0.45 μm, for 14594, pk 100

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

A. OPERATING CONDITIONS

1. Shipping Solvent: Distilled Water
2. Max. Flow Rate: 1.5 mL/min

   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.
3. Standard Flow Rate: 1.0 - 1.5 mL/min
4. Max. Pressure: 20.0 MPa
5. pH Range: 2 - 12 (pH above 12 or below 2 can only be used for a short time)
6. Salt Conc.: ≤ 1 mol/L
7. Organic Conc.: ≤ 50%
8. Temperature: 0 - 60°C
9. Cleaning Solvents:
   (1) 0.1 - 0.2mol/L NaOH, or
   (2) 20 - 40% acetic acid aq., or
   (3) Aqueous buffer in 30% acetonitrile or methanol, or
   (4) Urea or non-ionic surfactant in buffer

   NOTE: Clean the column regularly by injecting up to one column volume 0.1 - 0.2mol/L NaOH in 250 μl - 2ml increments.
10. Storage: Store the column in the shipping solvent when it will not be used the next day. Avoid air to enter the column!
11. Column Protection: No guard column is available for the TSK-GEL SP-NPR column. Be sure to use a filter after the injector with 0.5 micron pores to avoid frequent plugging of the one micron pore size NPR column frit. We also recommend a pre-injector membrane filter to prevent particles from pump seal wear to reach the column.

    NOTE: Use high quality reagents, water and solvents for preparing buffers. Fouling of the resin, leading to a loss in retention and/or efficiency, occurs faster due to the small surface area of non-porous resin particles.

B. SPECIFICATION

The performance of TSK-GEL SP-NPR columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specification:

1. Resolution (Rs): ≥ 10.0

   $Rs = 2(V_2 - V_1)/1.7(W_2 + W_1)$ in which,
   V_1 = elution volume trypsinogen
   V_2 = elution volume α-chymotrypsinogen
   W_1, W_2 = widths of peaks 1 and 2 at half height