Instructions of TSKgel Enantio L1 and Enantio L2

TSKgel Enantio L1 and L2 are HPLC columns for the separation of enantiomers such as α-amino acids and α-hydroxy carbonic scids without precolumn derivation by ligand exchange chromatography.

The stationary phases on Enantio L1 and L2 consist of the complexes of copper ion and chemically bonded chiral aliphatic amino acid and aromatic one respectively. The chiral recognition mechanism is based on the stability of the complexes comprising copper ion, amino acid on the stationary phase and solutes.

Support

Base material	: silica gel
Stationary phase	: aliphatic amino acid Cu^{2+} complex (L1) aromatic amino acid Cu^{2+} complex (L2) (chemically bonded)
Particle diameter	: 5 μm

Column

Dimension	: 4.6 mm (I.D.) × 25 cm (L)
Solvent	: acetonitrile

Working range

Pressure	: 14MPa (1,960psi)
Organic solvent in eluent	: 0 - 100 %
Temperature	: 10 - 50 ℃
pH range	: 2 - 7.5
Salt concentration range	: less than 1.0 mol/L

Quality test

Theoretical plate numbers of individual columns of TSKgel Enantio L1 and L2 are confirmed by the quality test.

Guaranteed theoretical plate number

TSKgel Enantio L1	: 6,000 TP/column
TSKgel Enantio L2	: 4,000 TP/column

Test conditions

Enantio L1

Eluent : 0.5 mmol/L $CuSO_4$ aq.
Flow rate :1.0 mL/min
Sample : L-Serine 100 μg/mL, 10 μL
Temperature : 50℃
Detector : UV. 254nm

Enation L2

Eluent : 30 μmol/L $CuSO_4$ aq.
Flow rate : 1.0 mL/min
Sample : L-Serine 100 μg/mL, 10 μL
Temperature : 50 ℃
Detector : UV. 254 nm