

ChromTech Chiral HPLC Columns

Chiral-HSA

- Acids and neutrals
- Excellent for hydrophilic acids

The chiral selector in this stationary phase is human serum albumin (HSA). The protein has been immobilized onto spherical 5µm particles. Enantiomers of preferentially acidic compounds can be resolved directly, without derivatization. The column is operated in the reversed phase mode.

With the Chiral-HSA column, both racemic acids and amino acids can be resolved directly, without derivatization.

Chromatographic Conditions

The column is operated in reversed phase mode: phosphate buffers (normally 0.01 to 0.1 M, pH 5-7) with the addition of less than 10% of an organic modifier such as 2-propanol, acetonitrile, methanol, or ethanol. Charged organic modifiers such as octanoic acid (1-5µM) may also be used. Enantio-selectivity and retention can be regulated by changing the mobile phase composition; ie: pH, buffer concentration and/or nature of the organic modifier.

Storage Conditions

The column should be used at room temperature or below. When the column is stored for long periods of time it is recommended to fill with 10% 2-propanol in distilled water and place it in the refrigerator.

Cleaning of the Column

If the column has been contaminated, wash the column over night with 10% 2-propanol in distilled water at a flow rate of 0.2mL/min.

See page 80 for ordering information.

Chiral-CBH

- Basic compounds
- Excellent for hydrophilic amines

Cellobiohydrolase (CBH) is a stable enzyme which has been immobilized onto 5µm spherical silica particles creating the chiral stationary phase in the Chiral-CBH column. This is also a reversed phase column, used for the direct separation of enantiomers. The column is preferentially used for the separation of the enantiomers of basic drugs from many compound classes.

Chromatographic Conditions

The mobile phases are buffer solutions with a relatively low content of uncharged organic modifier. **Note! Do not use charged organic modifiers in the mobile phase.** The mobile phases are mixtures of phosphate or acetate buffers and organic solvents as 2-propanol or acetonitrile. The retention and the enantioselectivity can be regulated by changes in pH, buffer concentration and organic modifier (nature and concentration).

Storage Conditions

The column should be used at room temperature or below. When the column is stored for long periods of time it is recommended to fill with 10% 2-propanol in distilled water and place it in the refrigerator.

Cleaning of the Column

If the column has been contaminated, wash the column over night with 10% 2-propanol in distilled water at a flow rate of 0.2mL/min.

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