

INSTRUCTION MANUAL CHIRAL-HSA

INSTALLATION

The column is filled with 10 % 2-propanol in dist. water. Wash the column with dist. water. Start at low flow-rate and increase to 0.5 ml/min and maintain this flow during 2 min. Increase the flow-rate to 0.9 ml/min and continue the washing for 10 min. Equilibrate the column with the mobile phase to be used.

Recommended flow rate is 0.9 ml/min with a 4.0 mm I.D. column.

We recommend the use of a **CHIRAL-HSA guard column** in order to protect the analytical column from impurities with high affinity and particulate impurities. Exchange the guard column regularly, otherwise the column performance will be affected. This is of special importance in bioanalysis.

STORAGE

The column can be stored at room temperature. When in use, the column can be left in the chromatographic system. However, be careful when buffers without organic modifiers, or buffers containing low concentrations of acetonitrile, are used, since in such mobile phases bacteria grows fast. Such mobile phases must be freshly prepared. When the column is stored for longer periods of time it is recommended to fill it with 10 % 2-propanol in dist. water. It is also recommended to place the column in the refrigerator. Before use repeat the installation procedure.

TEMPERATURE

The column should be used at room temperature or below.

MOBILE PHASE COMPOSITION

BUFFER: Phosphate buffer (suitable conc. 0.01-0.1 M) should be used.

pH: The column can be used in the pH-range 5 - 7.

ORGANIC MODIFIERS:

Examples of uncharged organic modifiers that have been used is 2-propanol, methanol, ethanol and acetonitrile (in concentrations < 10%). The separation factor can be strongly affected by the type and the concentration of the uncharged modifier.

Aliphatic carboxylic acids like octanoic acid have also been used as organic modifiers, in concentrations between 1 - 5 mM. If octanoic acid has been used, we do not recommend that the same column is used with mobile phases without octanoic acid, as the acid is hard to completely remove from the column. For best results, use one column for uncharged modifiers and another column for charged modifiers (or mixtures of charged and uncharged).



SAMPLES The recommended sample concentration is less than 0.10 mg/ml with an injection volume of 10-20 µl. If possible, dissolve the sample in the mobile phase. If the sample is insoluble in the mobile phase, add a higher concentration of the organic modifier. However, be aware of that a too high organic modifier concentration might precipitate the buffer salts. Avoid to dissolve the sample in pure solvents. Do not inject unclear sample solutions or samples containing undissolved compounds. In bioanalytical work use an isolation procedure that produces clear sample solutions, free from emulsions of fatty compounds. Exchange the guard column regularly.

CLEANING OF THE COLUMN

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

CHIRAL-HSA products:

HSA 100.4	CHIRAL-HSA 100x4.0 mm	HSA 100.10	CHIRAL-HSA 100x10.0 mm
HSA 150.4	CHIRAL-HSA 150x4.0 mm	HSA 150.10	CHIRAL-HSA 150x10.0 mm
HSA 50.4	CHIRAL-HSA 50x4.0 mm	HSA 10.3	CHIRAL-HSA 10x3.0 mm guard
HSA 100.3	CHIRAL-HSA 100x3.0 mm	HSA 10.2	CHIRAL-HSA 10x2.0 mm guard
HSA 150.3	CHIRAL-HSA 150x3.0 mm	CH 10.3	Guard column holder
HSA 100.2	CHIRAL-HSA 100x2.0 mm	CON 2	Guard column coupler
HSA 150.2	CHIRAL-HSA 150x2.0 mm	CON 4	Micro guard column coupler
HSA 50.2	CHIRAL-HSA 50x2.0 mm		



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