



Operating Instruction Sheet CDShell-RSP

Column Description

Product Type: Analytical columns for both HPLC and SFC operations
Chiral Selector: Hydroxypropylated- β -cyclodextrin was covalently bonded on 2.7 μ m superficially porous particles (SPPs)
Hardware: Idex[®] (Isobar) with 2 micron (inlet) and 1 micron (outlet) frits
Dimensions: Available in 5/10/15 cm length with 2.1/3.0/4.6 mm I.D.

QC Test Conditions

Sample: Jacobsen catalyst (2 mg/mL in mobile phase)
Mobile Phase: 90/10/0.3/0.2 ACN/MeOH/Acetic Acid(AA)/Triethylamine(TEA)
Temperature: Ambient (23 °C)
Injection Volume: 0.1-0.8 μ L
Detection: UV 254 nm

Operation Parameters

Flow Direction: Indicated by column label
Max Pressure: 400 bar for 4.6 mm I.D. columns;
500 bar for 3.0 mm/2.1 mm I.D. columns
Max Flow Rate: Within pressure limits, there is no limit on the flow rate
Safe pH Range: Buffer solution: pH 3.0-7.0
Temperature: 5-45 °C (allow step-wise increase/decrease @1 °C/min)

Mobile Phase Solvents

These CSPs can be used in any type of organic solvents without any issue. Allow at least 20 column volumes of conditioning time before injection.



Screening mobile phases

Polar Organic: 80/20/0.3/0.2 ACN/MeOH/AA/TEA

Reversed Phase: 30/70 ACN/20 mM Ammonium acetate buffer (pH = 3.6)

Optimizations

Polar Organic: Change ratio of ACN to MeOH
Change the ratio of AA/TEA between 3/1 to 1/3

Reversed Phase: Change organic/buffer ratio
Change different salts
Change pH for ionizable compounds

Flow Rate: Change the flow rate according to the retention time

Temperature: Change the temperature

Storage Pure ethanol/IPA is recommended for long term storage.

Regeneration Flush the column with 50/50, ACN/MeOH @ lower flow rates for at least 3 hours. Then equilibrate with mobile phase.

Shipment Each column has been QC-tested before shipping. The columns are stored in pure ethanol.