



Operating Instruction Sheet

LarihcShell-P

Column Description

Product Type: Analytical columns for both HPLC and SFC operations
Chiral Selector: Derivatized cyclofructan (CF6) 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: 1-(1-naphthyl)ethylamine (2 mg/mL in mobile phase)
Mobile Phase: 60/40/0.3/0.2 ACN/MeOH/Acetic Acid(AA)/Triethylamine(TEA)
Temperature: Ambient (23 °C)
Injection Volume: 0.1-0.8 μ L
Detection: UV 280 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
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. However, switching to or from a normal phase condition to other mobile phases, please use ethanol or IPA as a transition solvent. Allow at least 10 column volumes of conditioning time before injection.

**Screening mobile phases**

Polar Organic: 60/40/0.3/0.2 ACN/MeOH/AA/TEA

Normal Phase: 30/70/0.1 EtOH/Hexane (or Heptane)/TFA

Optimizations

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

Normal Phase: Change ratio and/or different type of alcohol

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 2 hours. Then equilibrate with mobile phase.

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