

Nexera UC SFC Column Care & Use Guide

WARNINGS

1. **DO NOT USE THIS GUIDE WITH NEXERA UC CHIRAL COLUMNS**
2. **IT IS HIGHLY RECOMMENDED THAT YOU READ THIS GUIDE FOR SPECIFIC COLUMN CONSIDERATIONS BEFORE PROCEEDING WITH THE INSTALLATION.**

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Column Installation

IT IS HIGHLY RECOMMENDED THAT YOU READ THIS GUIDE IN FULL FOR SPECIFIC COLUMN CONSIDERATIONS BEFORE PROCEEDING WITH THE INSTALLATION.

- Flush pump and line thoroughly with filtered and degassed mobile phase (without any buffers). Make sure there are no air bubbles in the system.
- Connect the column to the injector corresponding to the direction of the flow label (located on the column). Leave the outlet of the column unattached.
- Set pump to flow at 0.1 ml/min (of lowest setting) and increase to normal flow rate over 5 minutes.
- Stop flow when there is a free flow of solvent from the column outlet, wipe the end and attach to the detector.
- Equilibrate the column by passing approximately 10-30 column volumes of mobile phase at normal flow rate.
- Avoid any sudden pressure changes.

Column Storage

Column storage conditions affect column lifetime. It is advised that columns are stored properly in order to maintain the column.

- Never store columns with buffers.
- Flush with 5 column volumes of mobile phase without buffer to remove any buffers or salts.
- Store column in Ethanol

Column Cleaning

This cleaning procedure outlined below is for all Nexera UC SFC columns with ID of 3 – 4.6mm of any length. Please note that for all rinsing steps reverse the column flow direction.

1. Rinse column with a minimum of 10mL of HPLC grade ethanol
2. Rinse column with a minimum of 50mL of HPLC grade methanol
3. Rinse column with a minimum of 50mL of HPLC grade THF (tetrahydrofuran)
4. Rinse column with a minimum of 10mL of HPLC grade ethanol

Mobile Phase Consideration

General notes for mobile phases

- Use only highest purity chemicals and reagents.
- Degas and filter all mobile phases prior to use.
- Trace impurities can dramatically degrade columns.
- When changing to a different mobile phase, make sure the solvents and or buffers are miscible.
- Using solvents that are immiscible with the solvent in the column can permanently damage the column. Salt and buffer precipitation from the mobile phase can permanently damage the column.
- Always check sample solubility and if possible use the mobile phase as the diluent (sample solvent).