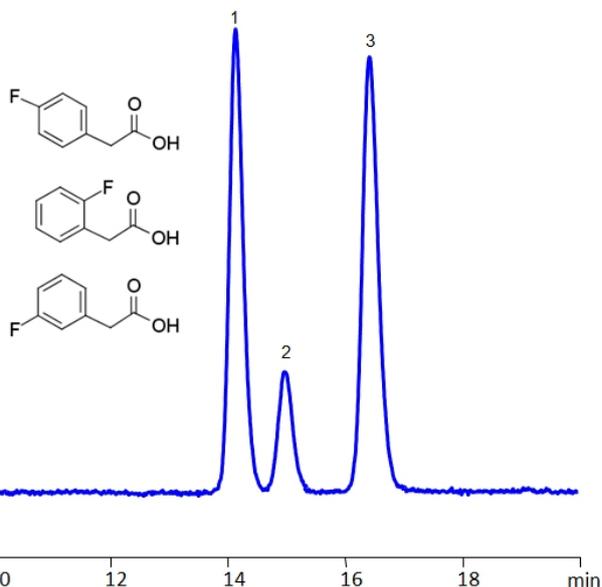


HPLC Method for 2-Fluorophenylacetic acid, 4-Fluorophenylacetic acid, 3-Fluorophenylacetic acid Compatible with Mass Spectrometry

1. 4-Fluorophenylacetic acid (4-FPAA)
2. 2-Fluorophenylacetic acid (2-FPAA)
3. 3-Fluorophenylacetic acid (3-FPAA)

Column: Primesep SB
Column size: 4.6 × 250 mm, 5 µm
Column part number: SB-46.250.0510
Mobile phase: MeCN/H₂O – 40/60%
Buffer: Formic Acid – 0.2%
Flow rate: 1.0 mL/min
Detection: UV 264 nm
(MS-compatible mobile phase)



High Performance Liquid Chromatography (HPLC) Method for Analysis of 2-Fluorophenylacetic acid , 4-Fluorophenylacetic acid, 3-Fluorophenylacetic acid

2-Fluorophenylacetic acid is a popular chiral derivatizing agent used in ¹⁹F NMR spectroscopy.

3-Fluorophenylacetic acid is a common precursor for synthesizing various pentaamine and bis-heterocyclic compounds. 4-Fluorophenylacetic acid is a common intermediary compound used to produce fluorinated anesthetics. While these 3 compounds all have the same chemical formula, the position of the Fluoride group varies between them, changing slightly their retention and chromatographic characteristics.

All 3 isomers can be measured at low UV. Using a Primsep SB reverse-phase column and a mobile phase consisting of acetonitrile (MeCN) and water with either formic acid or acetic acid buffer, these fluorophenylacetic acid isomers can be retained, separated, and UV detected at 264 nm with precise resolution. This method is compatible with Mass Spectrometry.

Method Parameters

Column	Primesep SB, 4.6 x 250 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H ₂ O – 60/40%
Buffer	Acetic Acid – 2.0%
Flow Rate	1.0 mL/min
Detection	UV 264 nm

Quelle: <https://sielc.com/hplc-method-separation-of-fpaa>