

The chromatographic separation was conducted in RPC separation with a Kinetex EVO C18 column (2.1 × 100 mm, 2.6 μm, Phenomenex) and NPC separation using hydrophilic interaction liquid chromatography (HILIC) with an InfinityLab Poroshell 120 HILIC-Z column (2.1 × 100 mm, 2.7 μm, Agilent), respectively. Each sample was injected for analysis in a randomized fashion to avoid complications related to the injection order. For RPC analysis, the mobile phase consisted of phase A (0.1% formic acid (FA) in H₂O) and phase B (0.1% FA in acetonitrile (ACN)) with a flow rate of 0.4 mL/min. The RPC elution condition was set as follows: 0 min: 10% B, 1 min: 30% B, 19 min: 95% B, 20 min: 95% B, 20.1 min: 10%, 23 min: 10%. For NPC analysis, mobile phase A was 25 mM CH₃COONH₄ and 25 mM NH₄OH in H₂O, and mobile phase B was ACN, which was run at a flow rate of 0.3 mL/min. The NPC elution condition was set as follows: 0 min: 85% B, 1 min: 85% B, 12 min: 65% B, 12.1 min: 40% B, 15 min: 40%, 15.1 min: 85% B, 20 min: 85% B. The temperature of column chamber was set at 40 °C.