



# EPHEDRA ALKALOIDS & SYNEPHRINE ON SELECTRA PFPP BY LC-MS/MS

## HPLC Conditions

**Instrumentation** Thermo Scientific™ Dionex™ Ultimate™ 3000 HPLC

**HPLC column** UCT Selectra®PFPP, 100 × 2.1 mm, 3 μm  
(p/n: SLPFPP100ID21-3UM)

**Guard column** UCT Selectra®PFPP, 10 × 2.1 mm, 3 μm  
(p/n: SLPFPPGDC20-3UM)

**Guard column holder** p/n: SLDGRDHLDLDR

**Mobile phase A** 10 mM ammonium acetate

**Mobile phase B** methanol

**Isocratic elution** 85:15 (A:B, v:v)

**Flow rate** 500 μL/min

**Column temp.** 50°C

**Run time** 20 min

**Injection volume** 5 μL

**Autosampler temp.** 10°C

**Wash solvent** methanol: water (1:1, v/v)

## MS Conditions

**Instrumentation** Thermo Scientific™ TSQ Vantage™ tandem mass spectrometer

**Ionization mode** ESI+

**Spray voltage** 4500 V

**Vaporizer temperature** 400°C

**Capillary temperature** 300°C

**Sheath gas pressure** 60 arbitrary units

**Auxiliary gas pressure** 55 arbitrary units

**Ion sweep gas** 0 arbitrary units

**Declustering potential** 2 V

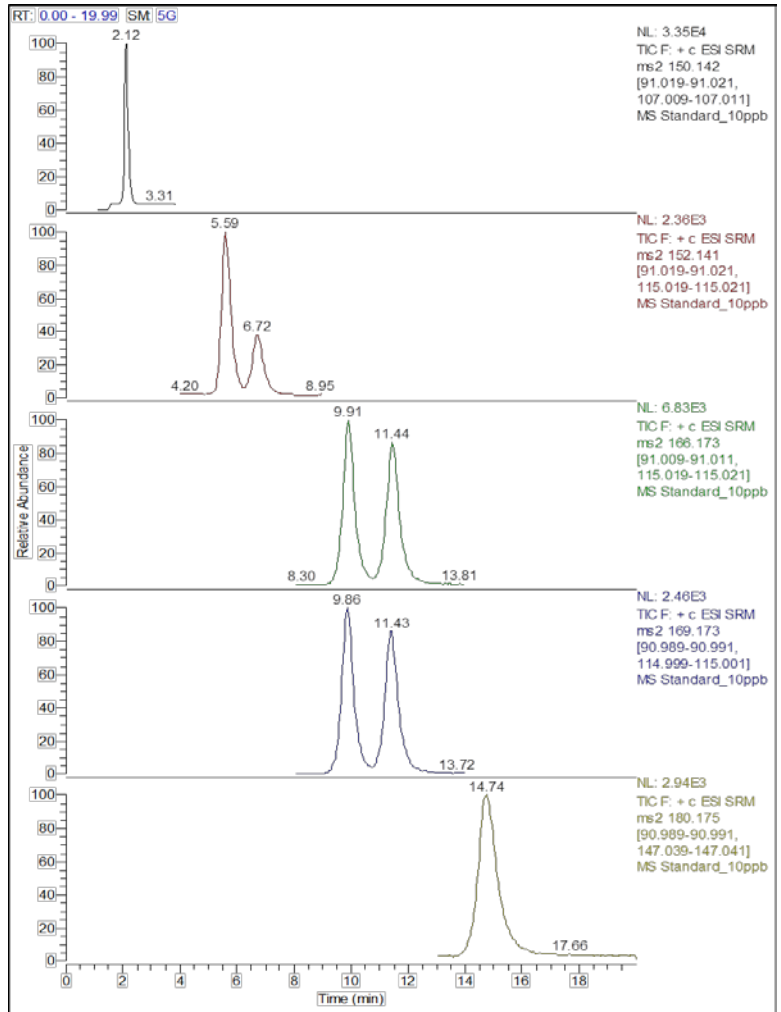
**Q1 and Q3 peak width** 0.2 and 0.7 Da

**Collision gas** argon

**Collision gas pressure** 1.8 mTorr

**Cycle time** 2 sec

**Weighting factor applied to calibration curves** 1/X



SRM Transitions				
Analyte	t <sub>R</sub> (min)	Precursor ion	Product ion 1	Product ion 2
Ephedrine	9.9	166.17	91.01	115.02
Pseudoephedrine	11.4	166.17	91.01	115.02
Norephedrine	5.6	152.141	91.02	115.02
Norpseudoephedrine	6.7	152.141	91.02	115.02
Methylephedrine	14.7	180.17	90.99	147.04
Synephrine	2.1	168.10	90.97	106.97
Ephedrine-d3 (IS)	9.9	169.17	90.99	115.00
Pseudoephedrine-d3 (IS)	11.4	169.17	90.99	115.00