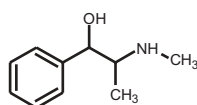


EPHEDRA ALKALOIDS IN FUNCTIONAL FOODS

HPLC METHOD

COLUMN: XTerra® Phenyl, 2.1 x 150 mm, 3.5 µm
PART NUMBER: 186001181
MOBILE PHASE A: 10 mM NH₄HCO₃, pH 9.5
MOBILE PHASE B: ACN
FLOW RATE: 0.23 mL/min
ISOCRATIC MOBILE PHASE COMPOSITION: 90% A; 10% B
INJECTION VOLUME: 5 µL
TEMPERATURE: 40 °C
DETECTION: UV @ 254 nm
INSTRUMENT: Alliance® 2695, 2996 PDA

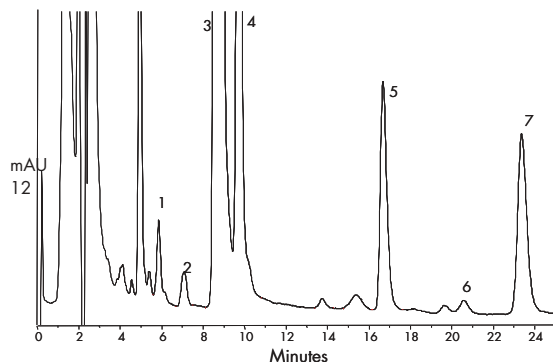


EPHEDRINE

PREPARE SAMPLE

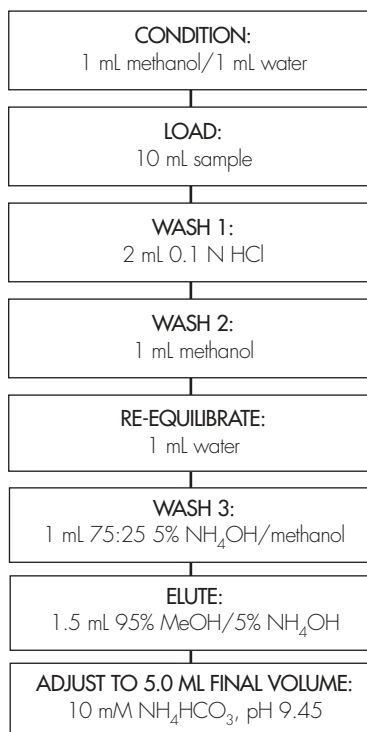
- Accurately weigh 1 gram of ephedra sample into a 100 mL volumetric flask, add 20 mL water and mix. Add 50 mL of MeOH and 1 mL of Internal Standard.
- Use 0.5 g sample for ephedra extracts
- Use 10 g sample weight for High Protein Powdered Drinks and other functional foods.
- Sonicate for 1 hour at ambient temperature
- Cool and bring to volume with MeOH
- Allow the suspended solids to settle, preferably centrifuge.
- Filter a 3 mL aliquot through a 0.45 mm filter before a sample preparation
- This step is critical to good SPE recovery.
- For SPE, dilute 2 mL of filtered sample extract to 10 mL with 0.1% formic acid (aqueous)

MULTI-HERB DIETARY SUPPLEMENT CAPSULE



OASIS® MCX EXTRACTION METHOD

Oasis® MCX Extraction Cartridge, 3 cc/60 mg



| | 50% Level % Recovery % RSD | 100% Level % Recovery % RSD | 150% Level % Recovery % RSD |
|---------------------|----------------------------------|-----------------------------------|-----------------------------------|
| 1 NE | 81.9 ± 6.7 8.12% | 74.7 ± 5.9 7.95% | 66.7 ± 3.7 4.46% |
| 2 NPE 1 occasion | 77.6 ± 1.8 2.25% | 66.2 ± 0.8 1.26% | 63.9 ± 0.73 1.15% |
| 3 E | 101.9 ± 2.5 8.12% | 102.3 ± 3.7 3.60% | 98.0 ± 5.5 5.60% |
| 4 PE | 89.0 ± 1.2 8.12% | 93.2 ± 3.4 3.61% | 92.8 ± 5.3 5.70% |
| 5 ME | 94.7 ± 4.2 4.46% | 98.7 ± 3.3 3.34% | 81.9 ± 1.8 1.88% |
| 6 MPE | 99.8 ± 16.3 16.4% | 85.4 ± 13.3 15.6% | 88.0 ± 7.7 8.73% |

100% Level

1. norephedrine (NE) 0.24mg/g
2. norpseudoephedrine (NPE) 0.40mg/g
3. ephedrine (E) 20.0mg/g
4. pseudoephedrine (PE) 5.0mg/g
5. methylephedrine (ME) 0.70mg/g
6. methylpseudoephedrine (MPE) 0.17mg/g