

## Scherzo SM-C18

150 x 2 mm

Application

A high throughput solid phase extraction method for vitamin B7 (biotin) from pooled human serum prior to mixed mode LC-MS/MS"

ハイスループット固相抽出法によるヒト血清中のビオチン(ビタミン B7)のLC-MS/MS分析

### Sample Preparation Workflow

Samples were extracted using Biotage EVOLUTE AX 100mg / 3mL cartridges ( Right table).

The matrix used was human pooled serum. The serum was fortified with the biotin standard to achieve desired analytical concentrations. The fortified serum (250uL) was pretreated with 0.1% aqueous ammonium hydroxide (750uL) to yield a final load volume of 1mL. The pooled human serum was obtained from BioChemEd services (Winchester, VA).

Step	Source	Volume (mL)
Condition	MeOH	3
Equilibration	0.1% NH <sub>4</sub> OH (aq)	3
Load	pretreated sample	1
Wash 1	0.1% NH <sub>4</sub> OH (aq)	3
Wash 2	MeOH	3
Elute	98/2% MeOH/formic acid	2
Post-extraction Evaporate/recon	0.1% formic acid	0.1

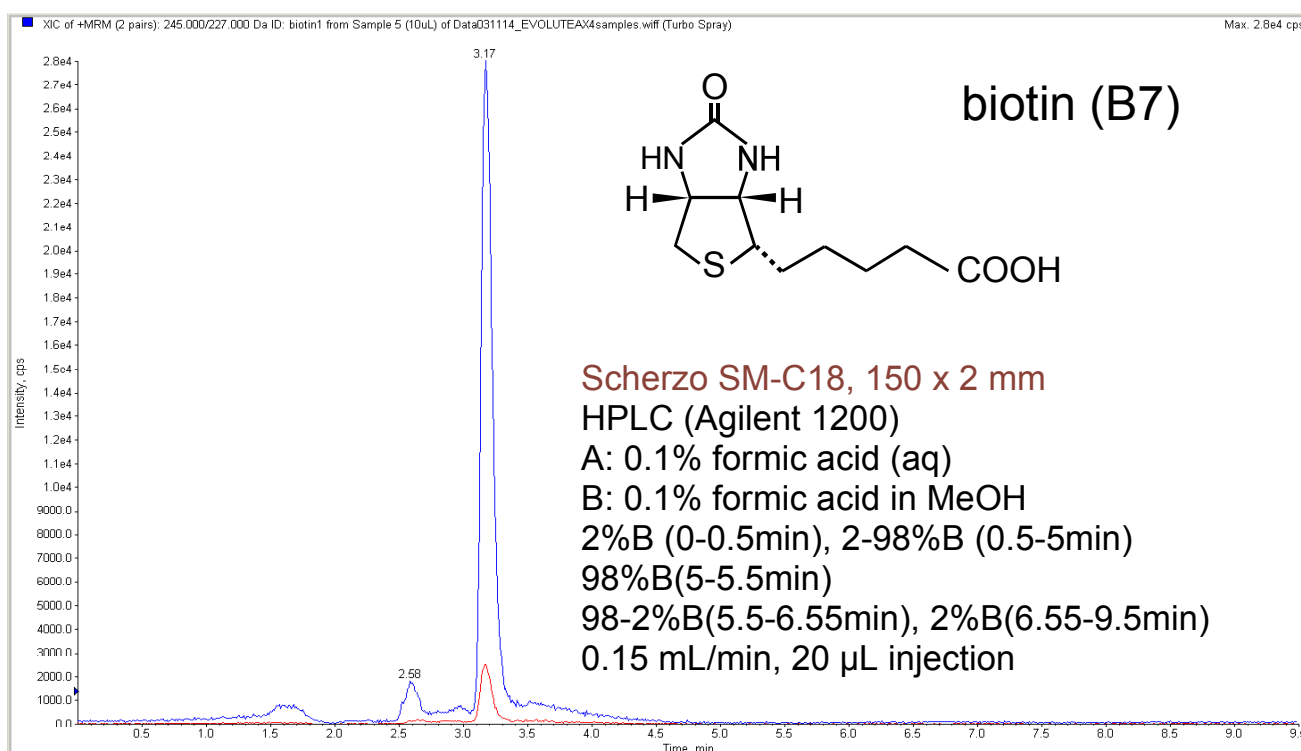


Figure : Representative chromatogram for a 6 ng/mL fortified serum sample extracted with an EVOLUTE AX solid phase extraction cartridge (3mL/100mg)

### Mass Spectrometry

API 4000 Q-Trap equipped with a Turbo Ionspray interface operated in positive ion mode.

Analyte	Mol. Wt. (g/mole)	MRM transition (m/z)	Declustering potential	Collision energy	Dwell time (ms)
biotin	244	245 -> 227	40	30	300
Qualifier ion	244	245 -> 166	40	36	300

Courtesy of Frank Kero, Biotage, USA