

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 ₄ OH (aq)	3
Load	pretreated sample	1
Wash 1	0.1% NH ₄ OH (aq)	3
Wash 2	MeOH	3
Elute	98/2% MeOH/formic acid	2
Post-extraction Evaporate/recon	0.1% formic acid	0.1

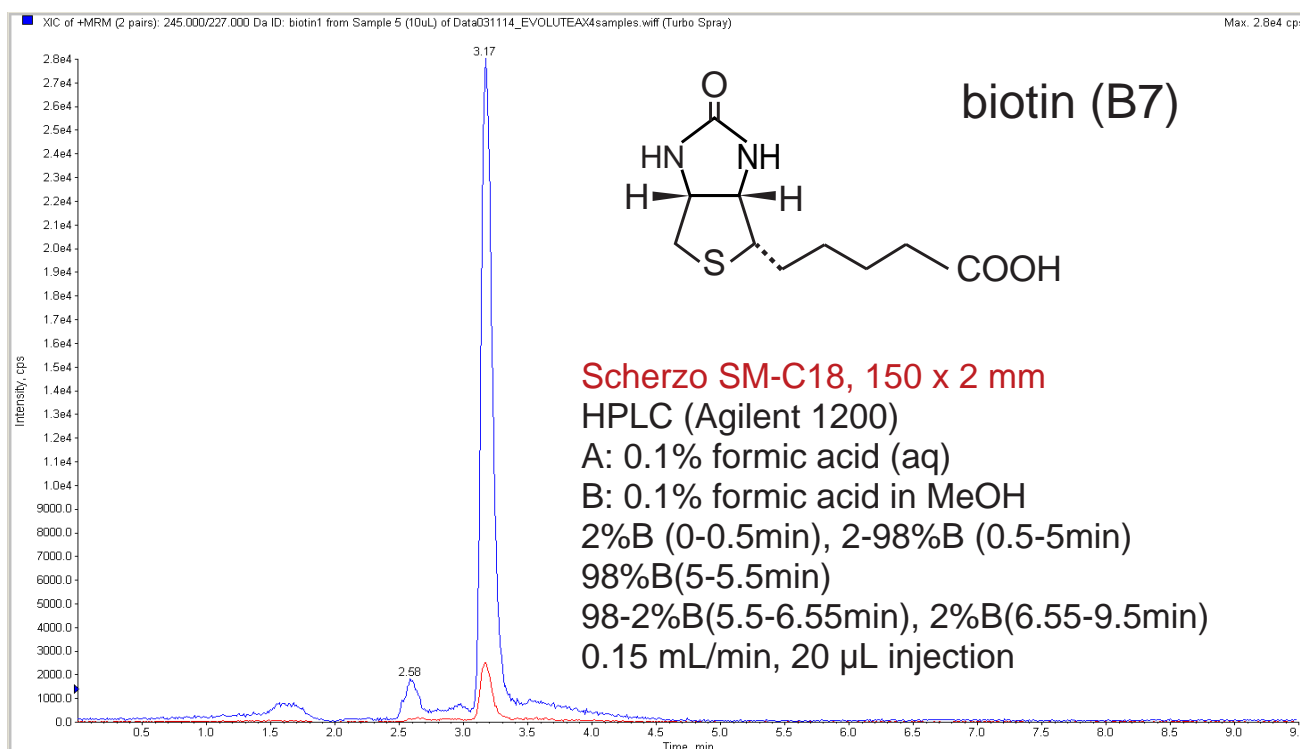


Figure : Representative chromatogram for a 6 ng/mL fortified serum sample extracted with an EVOLUTE AX solid phase extraction cartridge (3mL/100mg)

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