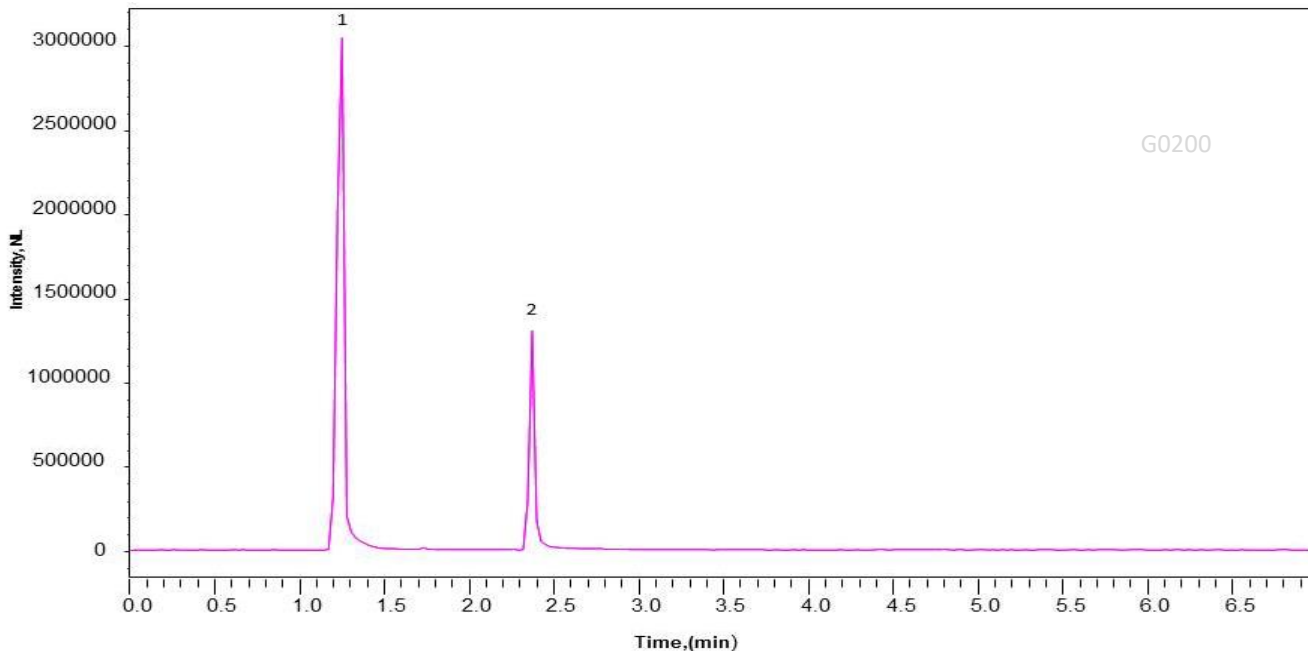


LC-MS Separation of EtG/EtS from urine on HALO® Penta-HILIC, 2 µm



TEST CONDITIONS:

Column: HALO 90 Å Penta-HILIC, 2 µm, 2.1 x 100mm
Part Number: 91812-605

Mobile Phase A: 5 mM ammonium formate/
0.1% formic acid in 95:5 ACN/water

Mobile Phase B: 5mM ammonium formate/
0.1% formic acid in 80:20 ACN/water

Gradient:	Time	%B
	0.00	0
	1.00	100
	5.00	100
	5.01	0
	7.00	END

Flow Rate: 0.4 mL/min

Initial Pressure: 325 bar

Temperature: 40 °C

Injection Volume: 2 µL

Sample prep: 5ng/mL EtG/EtS in 20 µL of synthetic urine.
10 fold dilution with mobile phase A.

PEAK IDENTITIES:

1. EtS (MH⁺=125.120 g/mol)
2. EtG (MH⁺=221.193 g/mol)

MS CONDITIONS:

LCMS system: Shimadzu LCMS-2020

Detection: -ESI MS

Spray voltage: 4.50 kV

Drying line temp: 300 °C

Heat Block: 450 °C

Ethyl glucuronide (EtG) and ethyl sulfate (EtS) are metabolites of ethanol that are found in urine. The presence of these can be used to determine if an alcoholic beverage was ingested. Zero tolerance programs often use this test.