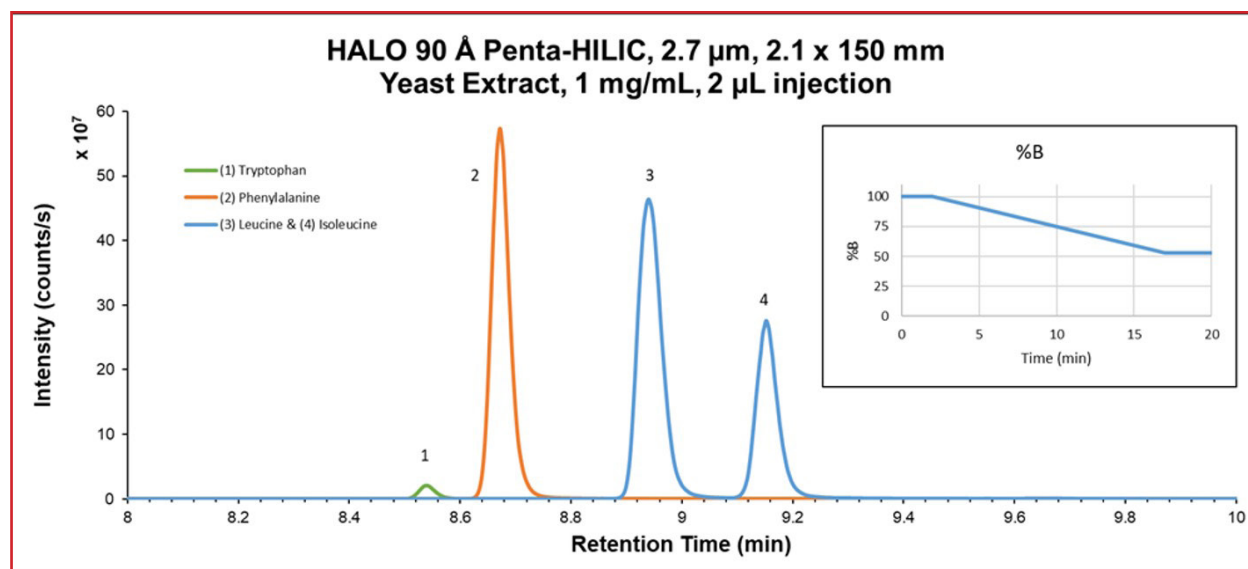
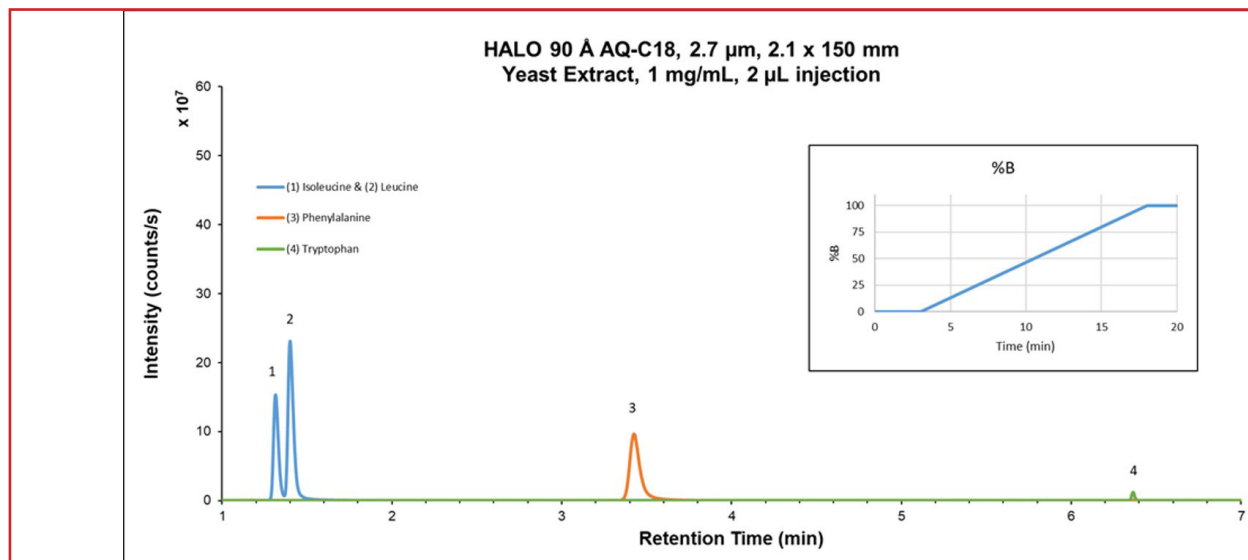




### Amino Acid Analysis in Biological Matrices Using Reversed Phase and HILIC Mode

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Metabolomic analyses are utilized in various avenues of clinical research, including drug discovery, disease characterization, and pharmacodynamic evaluation. Metabolites are often studied via liquid chromatography-mass spectrometry (LC-MS) in both reversed-phase (RPLC) and hydrophilic interaction (HILIC) modes. A novel gradient technique was employed to save time and to avoid the need to prepare new mobile phases when RP columns are exchanged for HILIC columns. Generating LC-MS comparisons with RP or HILIC columns can be done with the same mobile phase reservoirs while changing only gradient profiles to suit RP or HILIC mode. This screening technique can be easily automated and expanded by using column switching valves.





### HALO® AQ-C18 TEST CONDITIONS:

**Column:** HALO 90 Å AQ-C18, 2.7 µm 2.1 x 150 mm

**Part Number:** 92812-722

**Mobile Phase A:** 8 mM ammonium formate, pH 3.0 (aq.), in 100 % water

**Mobile Phase B:** 8 mM ammonium formate, pH 3.0 (aq.), in 95:5 acetonitrile:water

Gradient:	Time	%B
	0.0	0
	3.0	0
	18.0	100
	21.0	100

**Flow Rate:** 0.5 mL/min

**Temperature:** 35 °C

**Detection:** LC/MS QExactive HF Hybrid Orbitrap

**Injection Volume:** 2 µL

### HALO® Penta-HILIC TEST CONDITIONS:

**Column:** HALO 90 Å Penta-HILIC, 2.7 µm 2.1 x 150 mm

**Part Number:** 92812-705

**Mobile Phase A:** 8 mM ammonium formate, pH 3.0 (aq.), in 100 % water

**Mobile Phase B:** 8 mM ammonium formate, pH 3.0 (aq.), in 95:5 acetonitrile:water

Gradient:	Time	%B
	0.0	100
	2.0	100
	17.0	53
	20.0	53

**Flow Rate:** 0.3 mL/min

**Temperature:** 35 °C

**Detection:** LC/MS QExactive HF Hybrid Orbitrap

**Injection Volume:** 2 µL

### MS CONDITIONS:

**System:** ThermoFisher Q Exactive HF Hybrid Orbitrap

**Spray Voltage (kV):** 3.5

**Capillary Temperature:** 350 °C

**Sheath gas:** 60 (RP) 40 (HILIC)

**Aux gas:** 25 (RP) 20 (HILIC)

**RF lens:** 40

