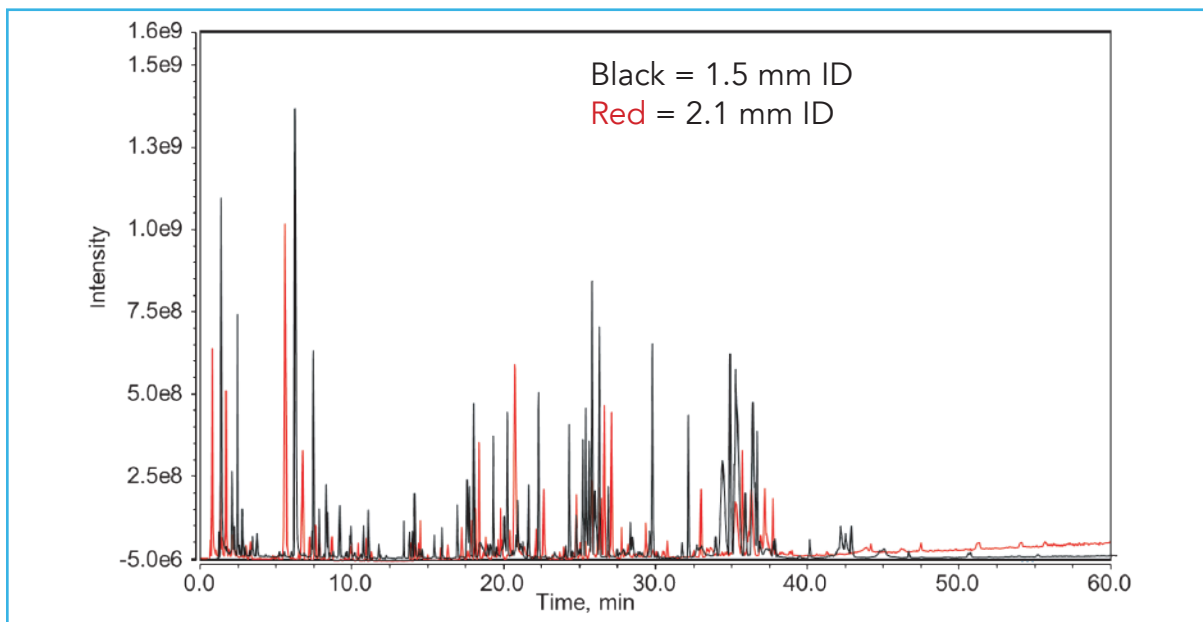




Increased Sensitivity and Solvent Savings of Trastuzumab Tryptic Digest using a 1.5 mm ID Column

284-BIO



TEST CONDITIONS:

Column: HALO 160 Å ES-C18, 2.7 μ m, 1.5 x 150 mm

Part Number: 9212X-702

Column: HALO 160 Å ES-C18, 2.7 μ m, 2.1 x 150 mm

Mobile Phase A: Water/0.1% DFA

B: Acetonitrile/0.1% DFA

Gradient:	Time (min)	%B
	0.0	2
	60.0	50

Flow Rate: 0.2 mL/min for 1.5 mm ID

0.4 mL/min for 2.1 mm ID

Back Pressure: 310 bar (1.5 mm)

444 bar (2.1 mm)

Temperature: 60 °C

Detection: ESI +

Injection Volume: 2 μ L of 1.25 mg/mL trastuzumab tryptic digest

Sample Solvent: 1.5 M guanidine HCl/0.5% formic acid

LC System: Shimadzu Nexera X2

MS System: ThermoFisher Q Exactive

MS CONDITIONS:

Spray Voltage (kV): 3.8

Capillary temperature: 320 °C

Sheath gas: 35

Aux gas: 10

RF lens: 50

A separation of Trastuzumab tryptic digest is performed on a HALO 160 Å ES-C18 column using a ThermoFisher Q Exactive. By switching from a 2.1 mm ID to a 1.5 mm ID column there is an increase in overall sensitivity along with a significant reduction in solvent consumption highlighted with a long analysis time, such as with a peptide map. Extra column volume was reduced by optimizing the tubing from the column outlet to the MS source. The use of a 1.5 mm ID column delivers an increase in sensitivity and reduces solvent usage without having to invest into a specialized micro flow HPLC system.

