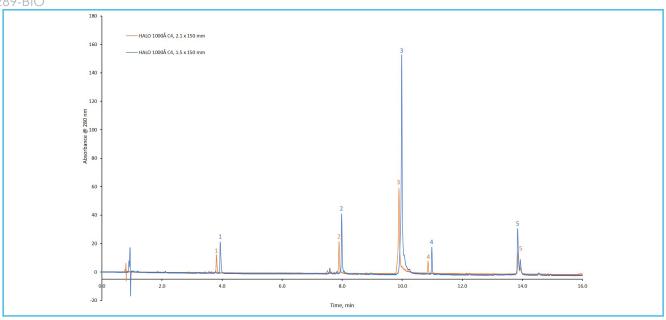


## **BIOPHARMACEUTICALS**

## Sensitivity Increase of Mixed Proteins Through the Use of a 1.5 mm ID column



## **TEST CONDITIONS:**

Column: HALO 1000 Å C4, 2.7 μm, 1.5 x 150 mm

Part Number: 9271X-714

Column: HALO 1000 Å C4, 2.7 µm, 2.1 x 150 mm

Mobile Phase A: Water/ 0.1% TFA

Mobile Phase B: 80/20 ACN/Water / 0.1% TFA

Gradient:	Time (min)	%B
	0.00	24
	15.00	57
	16.00	100
	17.00	100
	18.00	24

Flow Rate: 0.2 mL/min for 1.5 mm 0.4 mL/min for 2.1 mm

Pressure: 228 bar/1.5 mm

264 bar/2.1 mm

Temperature: 80 °C

Detection: UV 280 nm, PDA Injection Volume: 2.0 µL Sample Solvent: Water

Data Rate: 40 Hz

Response Time: 0.050 sec.

Flow Cell: 1µL

Instrument: Shimadzu Nexera X2

## **PEAK IDENTITIES**

- 1. Ribonuclease A
- 2. Lysozyme
- 3. SiluLite Sigma mAb
- 4. Alpha-lactalbumin
- 5. Enolase

A mix of proteins was separated using a HALO 1000 Å C4 column. The switch from a 2.1 mm to a 1.5 mm ID column gives a significant overall increase in sensitivity while maintaining similar test conditions. Optimization of the post-column tubing reduced the extra column volumes for this experiment. The 1.5 mm ID column can deliver an increase in sensitivity for separations without the investment of a specialized micro flow HPLC system.

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