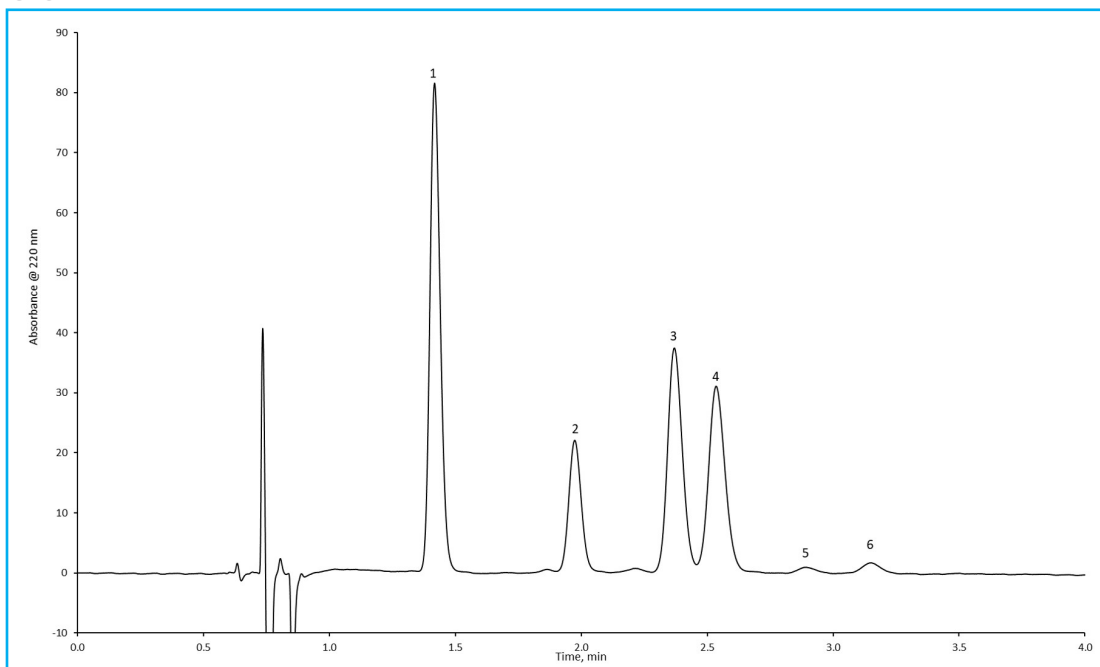




## Separation of Insulin Variants Using the HALO 160 Å PCS C18

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### PEAK IDENTITIES

1. Insulin-Glargine
2. Insulin-Bovine
3. Insulin-Asp
4. Insulin-LisPro
5. Insulin-Human
6. Insulin-Porcine

### TEST CONDITIONS:

Column: HALO 160 Å PCS C18 , 2.7  $\mu$ m, 2.1 x 150 mm

Part Number: 92112-717

Mobile Phase A: Water + 0.1% DFA

Mobile Phase B: Acetonitrile + 0.1% DFA

Isocratic: 27 %B

Flow Rate: 0.4 mL/min

Pressure: 225 bar

Temperature: 75 °C

Injection Volume: 1.0  $\mu$ L

Sample: 166  $\mu$ g/mL

Sample Solvent: 90/10 Water/ACN

Wavelength: PDA, 220 nm

Flow Cell: 1  $\mu$ L

Data Rate: 100 Hz

Response Time: 0.025 sec.

LC System: Shimadzu Nexera X2

A separation of 6 different insulins, both natural and recombinant, is performed on the HALO 160 Å PCS C18 column. Each insulin is very similar in chemical makeup with only slight changes in each peptide. With the use of the positively charged surface stationary phase and the 160 Å pore size, each insulin form can be separated under isocratic conditions. This is important for insulin manufacturers to confirm their quality control of the product. If small changes in the formulations are not monitored correctly, then there is a chance of severe allergic reaction to the drug. The HALO 160 Å PCS C18 column can help monitor these drugs through the quality control process and help deliver safe drugs to a patient.

