Insulin Analogues in Clinical and Post-Mortem Analyses

ACE®
Ultra-inert
UHPLC & HPLC Columns

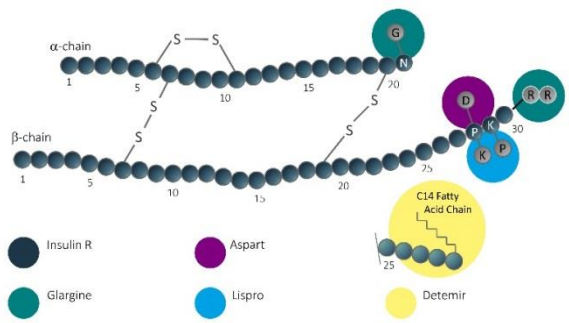
Application #AN3350

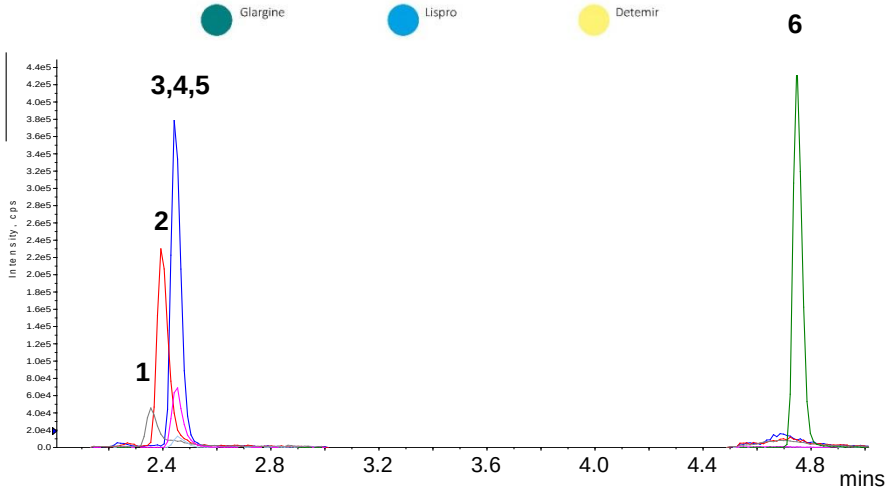
Conditions

Column:	ACE 5 C18-300
Dimensions:	50 x 2.1 mm
Part Number:	ACE-221-0502
Mobile Phase:	A: 0.1% acetic acid in H_2O B: 0.1% acetic acid in IPA/MeCN (25:75 v/v)

Time (mins)	%B
0.0	22
0.5	22
1.0	34
3.0	36
4.0	98
6.2	98
6.3	22

Flow Rate:	0.55 mL/min
Injection:	40 µL
Detection:	AB Sciex QTRAP 5500 ESI positive ion mode Ion spray voltage: 5500 V Temperature: 600 °C
Sample:	100 µU/mL insulin analogues in steroid-free serum





1. Glargine
   MW 6063
   Quantifier *m/z* 867.2 → 136
   Qualifier *m/z* 1011.4 → 1164.2
   Qualifier *m/z* 1011.4 → 1179.4
2. Bovine insulin (IS)
   MW ~5800
   Quantifier *m/z* 956.5 → 136.1
   Qualifier *m/z* N/A
3. Aspart
   MW 5826
   Quantifier *m/z* 971.7 → 136
   Qualifier *m/z* 1166 → 219
   Qualifier *m/z* 971.7 → 226.1
4. Lispro
   MW 5808
   Quantifier *m/z* 1162.4 → 217
   Qualifier *m/z* 968.6 → 217
5. Insulin R
   MW 5808
   Quantifier *m/z* 1162.4 → 345.2
   Qualifier *m/z* 1162.3 → 65.2
   Qualifier *m/z* 1162.4 → 226.1
6. Detemir
   MW 5917
   Quantifier *m/z* 1184 → 454.4
   Qualifier *m/z* 987 → 454.4
   Qualifier *m/z* 1184.0 → 357.4

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