AM-291

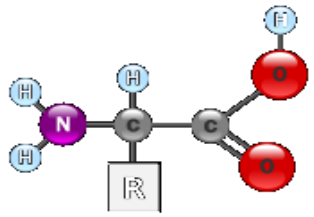
Quantification of free amino acids in plasma by GC-MS

Amino acid (AA) analysis in biological fluids is an important laboratory test in the diagnosis of inherited disorders of AA metabolism, the monitoring of bone and muscle disorders and of patients requiring long-term nutritional support, evaluation of new baby milks and parenteral and enteral feeds, and detection of renal drug toxicity.

Vitas AM-291 quantifies 23 free AA in serum or plasma from any species. The method is based on derivatisation of both the acid and the aminogroup, liquid liquid extraction and analysis by GC-MS.

1	Alanine	13	Methionone
2	Glycine	14	4-Hydroxyproline
3	a-Aminobutyric acid	15	Glutamic Acid
4	Valine	16	Phenylalanine
5	Norvaline (IS)	17	Glutamine
6	Leucine	18	Omithine
7	Isoleucine	19	Lysine
8	Threonine	20	Histidine
9	Serine	21	Tyrosine
10	Proline	22	Tryptophan
11	Aspargine	23	Cystine
12	Aspartic acid		

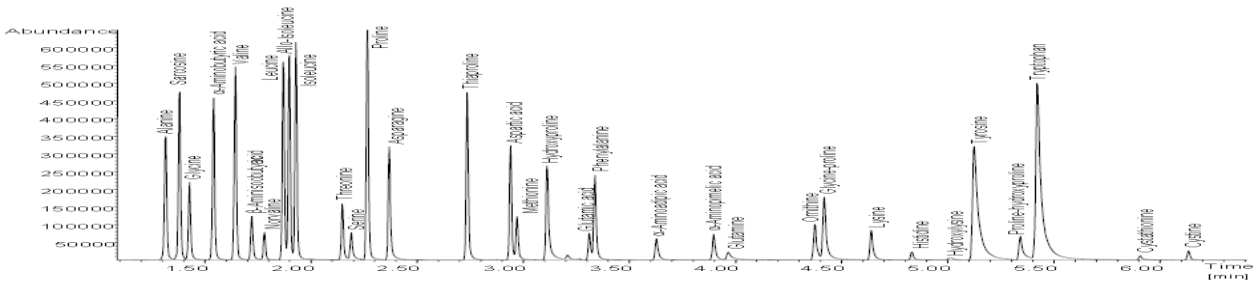
Amino acids covered by AM-291



Generic structure of an amino acid

Method details:

- Technique: GC-MS (EI)
- Sample Matrix: Plasma /serum
- Species: All
- Anticoagulant: Heparine
- Method Range: 5-1000 ng/ml
- LOQ: 5 ng/ml
- LOD: 0.1 ng/ml
- Precision: 2.0-3.9 %
- Required sample volume: 50 µL
- Shipping: Dry Ice



Representative chromatogram: Free amino acids in plasma

Vitas is a Norwegian GMP certified chemical analysis contract lab, with 20 years experience in providing a high quality, custom chromatographic analytical service based on cutting-edge knowledge and technology.

VITAS ANALYTICAL SERVICES

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