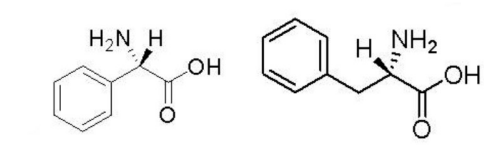
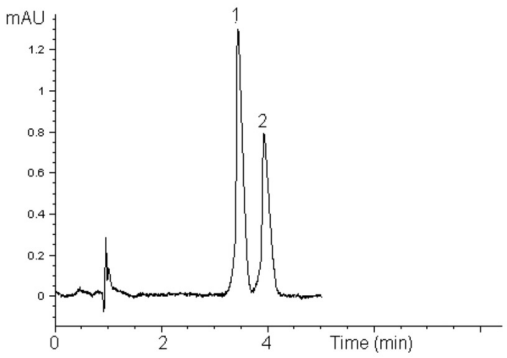
Aromatic Amino Acids

Separation of L - (+)-alpha-phenylglycine and L-phenylalanine



L- (+) - alpha - phenylglycine L - phenylalanine



Notes: Alpha – amino acids are precursors for many important chemical entities (for example isoindolines), which are essential to the discovery of new drugs.

Method Conditions

Column: Cogent Silica-C™, 4µm, 100Å

Catalog No.: 40000-75P

Dimensions: 4.6 x 7.5 mm

Solvents: A: DI H_2O/ 0.1 % formic acid
B: Acetonitrile/ 0.1 % formic acid

Mobile Phase: 80%B/ 20%A

Injection vol.: 2µL

Flow rate: 1 mL/min

Detection: 254 nm UV

Sample: 0.3 mg/mL of each sample dissolved in 50% acetonitrile/ 50% DI H_2O/ 0.5% formic acid.

Peaks: 1. L-(+)-alpha-phenylglycine
2. L-phenylalanine

t_0: 0.85 min

Discussion

A Cogent Silica-C column was used to separate two important amino acids: L-(+)–alpha-phenylglycine and L-phenylalanine.
There is still an unfulfilled need for rapid and precise determination of amino acids in many types of samples. Ordinary columns used today such as C18 which are present in every analytical laboratory are not able retain underivatized amino acids. They usually elute at or near the “dead volume” with all other polar compounds. Cogent Silica-C columns can retain all amino acids (underivatized) including the two presented above.

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