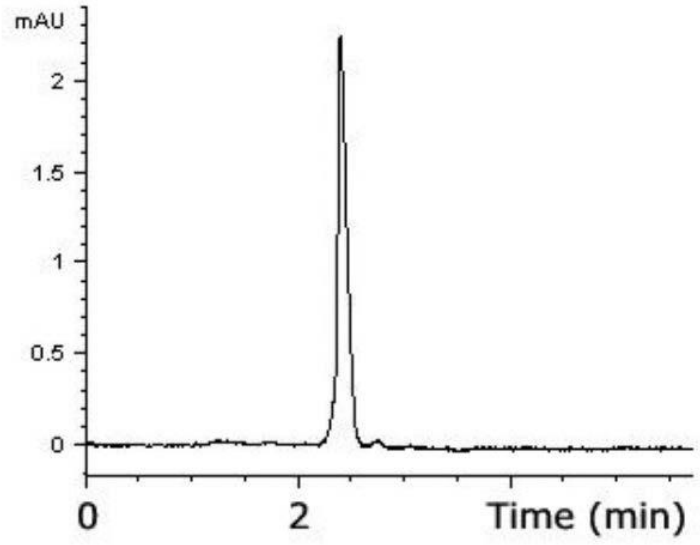
L-a-phenylglycine Antibiotic Analysis with HPLC - AppNote

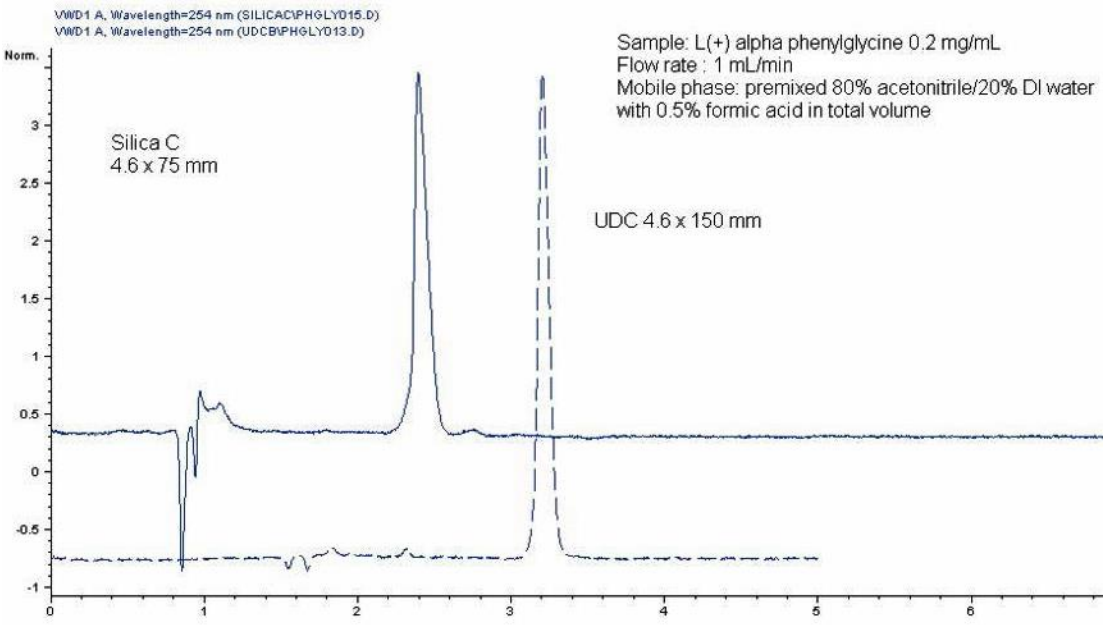
Comparison using Cogent Silica-C™ and UDC-Cholesterol™ HPLC Columns

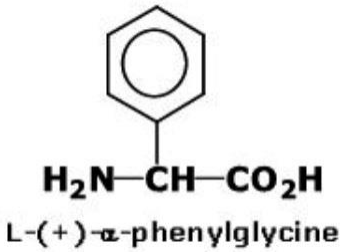
In this Method, a non-modified, silica-hydride HPLC Column, Cogent Silica-C, produces good Retention of the important amino acid L(+)-α-Phenylglycine with an Isocratic Mobile Phase. In addition the Retention Times are extremely Reproducible (%RSD 0.2).

The same Method using a Cogent UDC-Cholesterol Column (*UDC*), silica-hydride with an 11 Carbon Hydrocarbon and a Cholesterol molecule bonded to it, highlights the strong Retention on the Silica-C 4.6 x 75mm Column compared with the longer Cholesterol 4.6 x 150mm Column for this compound.

Both Chromatograms use the same Mobile Phase in the ANP or Aqueous Normal Phase mode of HPLC.







L-(+)-α-phenylglycine

Method Conditions

Columns:

Cogent Silica-C™, 4µm, 100Å

Cogent UDC-Cholesterol, 4µm, 100Å

Catalog Nos.:

40000-75P

69069-15P

Dimensions:

4.6 x 75mm

4.6 x 150mm

Mobile Phase: A: 80% Acetonitrile / 19.5% DI Water / 0.5% Formic Acid *(pre-mixed)*

Injection vol.: 5µL

Flow rate: 1mL / minute

Detection: UV @ 254nm

Sample Preparation: L(+)-α-Phenylglycine 0.3mg / mL dissolved in the Mobile Phase

t_0: 0.89 minutes

Note: *Phenylglycine is a synthetic amino acid used in manufacturing Lactam antibiotics, such as semi synthetic Cephalosporins and Penicillins.*

COGENT HPLC Columns™

Attachment

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