Lipophilic Peptides Analyzed with HPLC – AppNote

Simple Gradient for Non-Polar Peptides

In this Method, we demonstrate the Retention of several Hydrophobic Peptides without the use of a typical Reversed Phase Column.

Peak:

1. Gly-Tyr (*Glycyl-L-tyrosine*)
2. Val-Tyr-Val (*Valyltyrosylvaline*)
3. Met enkephalin (*Metenkefalin*)
4. Leu enkephalin
5. Angiotensin II

Method Conditions:

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000-15P-2

Dimensions: 2.1 x 150mm

Mobile Phase:

A: DI Water with 0.05% Trifluoroacetic Acid (TFA)

B: Acetonitrile with 0.05% Trifluoroacetic Acid (TFA)

Time (*minutes*)	%B
0	10
1	10
15	30
16	10

Post time: 2 minutes

Injection vol.: 1µL

Flow rate: 1.0mL / minute

Detection: UV @ 220nm

Sample Preparation: 0.5mg of each compound in 1 mL of Methanol. Sample for injection was diluted to 0.1mg / mL with Acetonitrile.

t0: 0.95 minutes

Note: Biomolecules are a diverse range of compounds, amino acids, proteins, peptides, nucleic acids, and obtaining quality separations is of great importance. Gly-Tyr is a dipeptide which has a role as a metabolite. Enkephalins are a family of peptides which are present in the brain and are involved in the control of pain sensation. They are endogenous peptides that act as an antagonists at opioid receptors. Angiotensin increases blood pressure by causing narrowing of the blood vessels.

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