

# HPLC Separation of alpha-Aminobutyric, beta-Aminobutyric, and gamma-Aminobutyric acids on Obelisc N

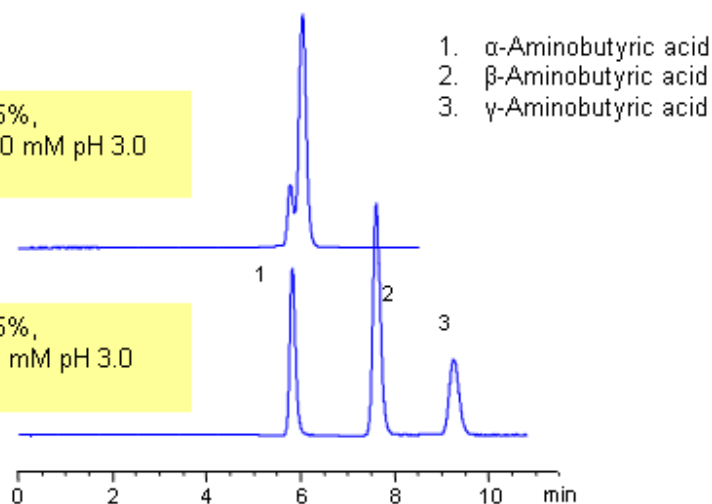
<https://sielc.com/Application-HPLC-Separation-of-Alpha-Aminobutyric-Beta-Aminobutyric-and-Gamma-Aminobutyric-Acids-on-Obelisc-N>

## Chromatogram

**Column:** Obelisc N  
**Size:** 150 x 4.6 mm  
**Flow:** 1.0 mL/min  
**Detection:** ELSD

**Mobile phase:** MeCN 75%,  
AmFm 20 mM pH 3.0

**Mobile phase:** MeCN 75%,  
AmFm 5 mM pH 3.0



## Description

GABA (neurotransmitter) and its isomers are polar zwitter-ionic compounds. Due to the position of amino-groups, all three compounds show different polar and basic properties. The isomers of aminobutyric acid are separated on an Obelisc N HILIC/cation-exchange column. Buffer concentration has a different effect on retention of alpha-, beta-, and gamma-aminobutyric acid. This general and robust method can be used for separation of other polar and ionizable compounds and isomers by mixed-mode chromatography.

## Method Parameters

<b>Mobile Phase</b>	MeCN/H <sub>2</sub> O
<b>Buffer</b>	AmFm pH 3.0
<b>Flow Rate</b>	1.0 ml/min
<b>Detection</b>	ELSD
<b>Class of Compounds</b>	Acid
<b>Analyzing Compounds</b>	Alpha-Aminobutyric acid, Beta-Aminobutyric acid, Gamma-Aminobutyric acid (GABA)

## HPLC Column Used

**Obelisc N, 4.6x150 mm, 5  $\mu$ m, 100A**

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