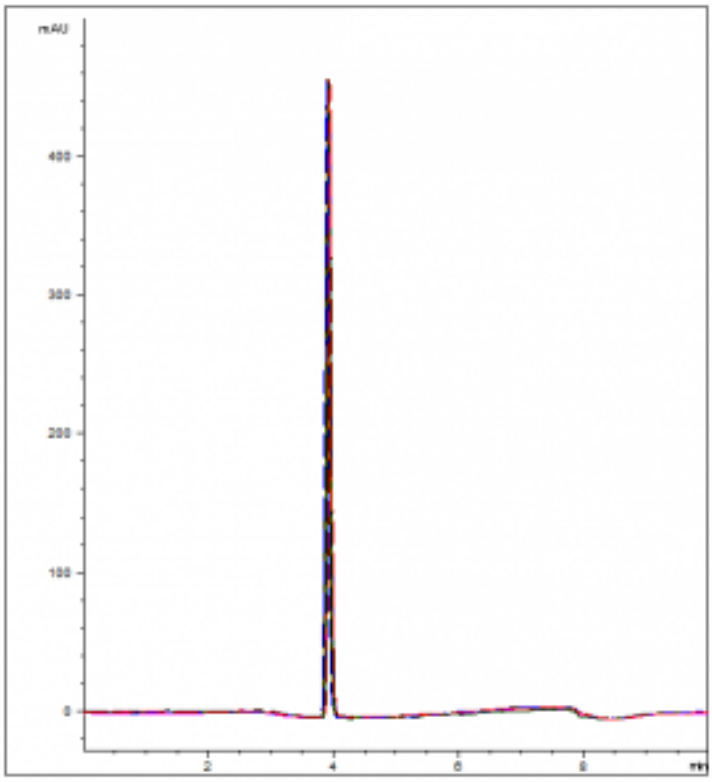
Indole-3-Butyric Acid Analyzed with HPLC – AppNote

A Reproducible Method for Detection of a Plant Hormone

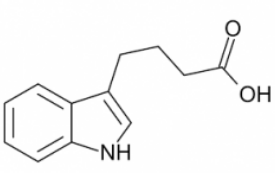
Click *HERE* for Column Ordering Information.

A rapid, sensitive, and Reproducible Method has been developed for Analysis of Indole-3-Butyric Acid. The data below, *(overlay of 10 chromatograms)* illustrates how the compound can be adequately Retained and detected using a simple Gradient in Reversed Phase HPLC. The Method demonstrates good Peak Shape and run-to-run Precision with RSD values less than 0.3%.

A Phenyl ring in the Column Stationary Phase provides beneficial π-π Interaction with the Analyte making possible the use of a very simple, Mass Spec friendly Mobile Phase with Formic Acid as an additive.



10 Injections of Indole-3-Butyric Acid Overlay



Indole-3-Butyric Acid

Method Conditions

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

Dimensions: 4.6mm x 75mm

Mobile Phase:

A: DI Water with 0.1% Formic Acid (v/v)

B: Acetonitrile with 0.1% Formic Acid (v/v)

Gradient:

Time *(minutes)*	%B
0	25
1	25
5	85
6	85
7	25
10	25

Injection vol.: 1µL

Flow rate: 1.0mL / minute

Detection: UV @ 280nm

Sample Preparation: Indole-3-Butyric Acid prepared as 1.0mg / mL standard solution in (50:50) Acetonitrile / DI Water

Notes: Indole-3-Butyric Acid a substance that is closely related in structure and function to a natural growth regulator found in plants. Indole-3-butyric acid is used on many crops and ornamentals to promote growth and development of roots, flowers and fruits, and to increase crop yields.

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