

## 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  $\pi$ - $\pi$  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



### Method Conditions

**Column:** Cogent Phenyl Hydride™, 4 $\mu$ m, 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.:** 1 $\mu$ L

**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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