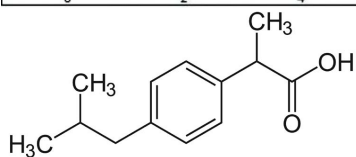
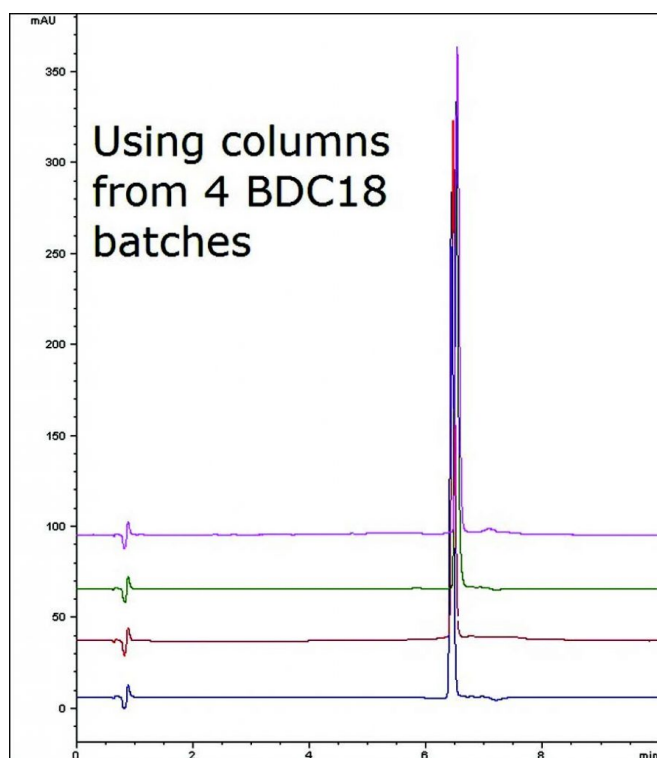


## Ibuprofen Assay Method Reproducibility with HPLC – AppNote

### Extremely Precise, Assay Method

This Assay Method for a common Ibuprofen formulation demonstrates Reproducibility and Robustness as the Figure below shows an overlay of four Chromatograms with different Columns lots ( $\%RSD < 1$ ).

An important aspect of Column Selection for a Method is that the Retention behavior is consistent across numerous manufacturing batches. This is especially crucial once a Method has been validated and is in routine use.



**Peak:**

Ibuprofen

### Method Conditions

**Column:** Cogent Bidentate C18™, (BDC18), 4μm, 100Å

**Catalog No.:** 40018-75P

**Dimensions:** 4.6 x 75mm

**Mobile Phase:**

A: DI Water with 0.1% Formic Acid

B: Acetonitrile with 0.1% Formic Acid

**Gradient:**

Time (minutes)	%B
0	30
2	30
6	70
7	30

**Post Time:** 3 minutes

**Injection vol.:** 10µL

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 254nm

**Sample Preparation:** 200mg strength Advil® tablet was ground and added to a 50mL volumetric flask with a diluent of 1:1 Solvent A / Solvent B. It was sonicated 10 minutes and diluted to mark. Then a portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.).

**t<sub>0</sub>:** 0.9 minutes

**Note:** Ibuprofen is a nonsteroidal anti inflammatory drug (NSAID) commonly used for its analgesic effects. It is marketed under a variety of trade names such as Advil and Motrin®. In addition, it is often included in combination formulations as well.



## Attachment

No 195 Ibuprofen Analyzed with HPLC pdf 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 05-09-2024