

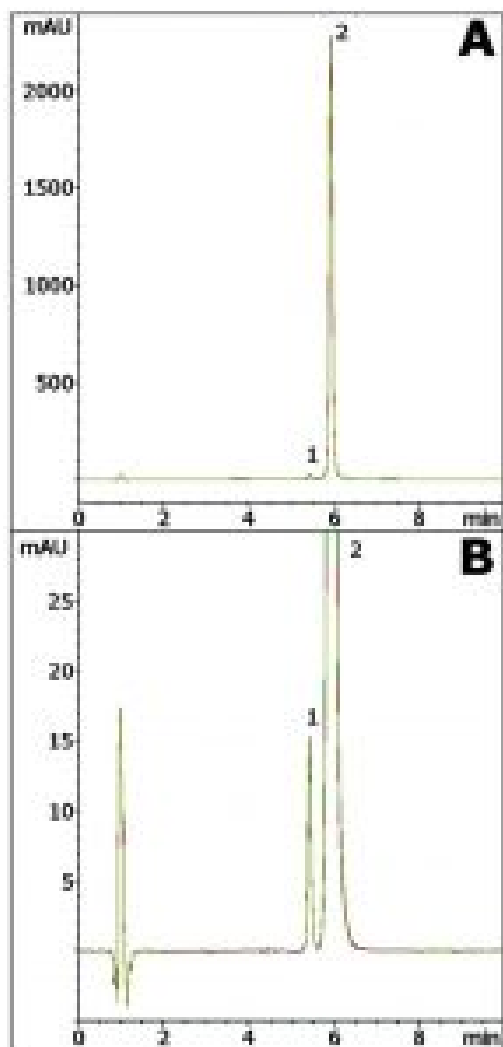
## Celecoxib Analyzed with HPLC – AppNote

### Impurities Method with Improved Peak Shape

Click [HERE](#) for Column Ordering Information.

Celecoxib is Separated from an Impurity in this simple Gradient Method. The Peak shape obtained for this API shows good Peak Symmetry. In addition, the Method shows good repeatability from run to run. The API Retention time %RSD from five runs was 0.025%.

Figure A shows the excellent Precision with five Chromatograms overlaid. Figure B shows a zoom-in view so that the impurity peak can be seen clearly. Another benefit of the Method is that the Mobile Phase is MS compatible.



Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

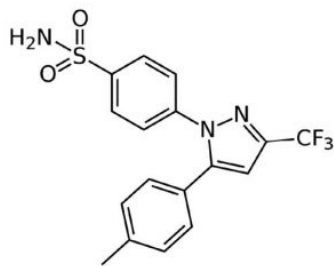
**MicroSolv Technology Corporation**

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)



## Peaks:

1. Impurity
2. Celecoxib

## Method Conditions

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

**Catalog No.:** 69020-7.5P

**Dimensions:** 4.6 x 75mm

### Mobile Phase:

A: DI Water / 0.1% Formic Acid

B: 97% Acetonitrile / 3% DI Water / 0.1% Formic Acid

### Gradient:

| Time (minutes) | %B |
|----------------|----|
| 0              | 30 |
| 5              | 60 |
| 6              | 30 |

**Temperature:** 35°C

**Post Time:** 4 minutes

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 254nm

**Injection vol.:** 1µL

**Sample Preparation:** A 200mg strength Celebrex® (*Celecoxib*) capsule was ground and added to a 100mL volumetric flask. 50mL Methanol was added and the solution was sonicated. The flask was diluted to mark with Solvent A and a portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.).

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

**Note:** *Celecoxib* is a selective COX-2 inhibitor used for treatment of acute pain and inflammation due to conditions such as Arthritis.



No 148 Celecoxib Analyzed with HPLC pdf 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

**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)