

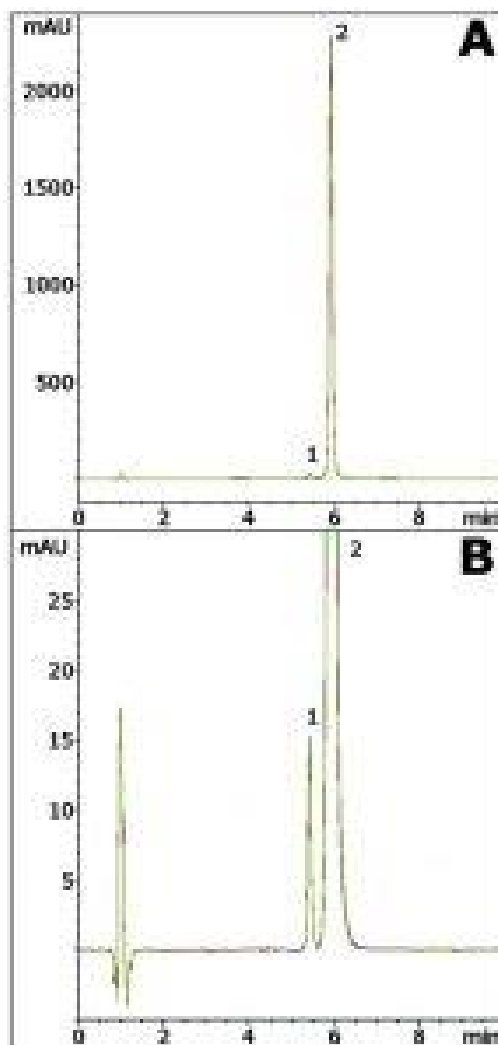
Celecoxib Analyzed with HPLC - AppNote

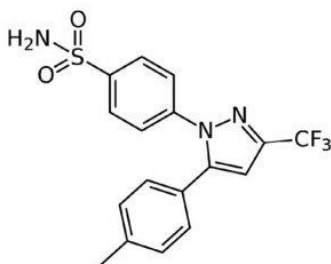
Impurities Method with Improved Peak Shape

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 overlayed. *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.





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.).

t₀: 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.



Printed from the Chrom Resource Center
Copyright 2025, 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
Website: www.mtc-usa.com