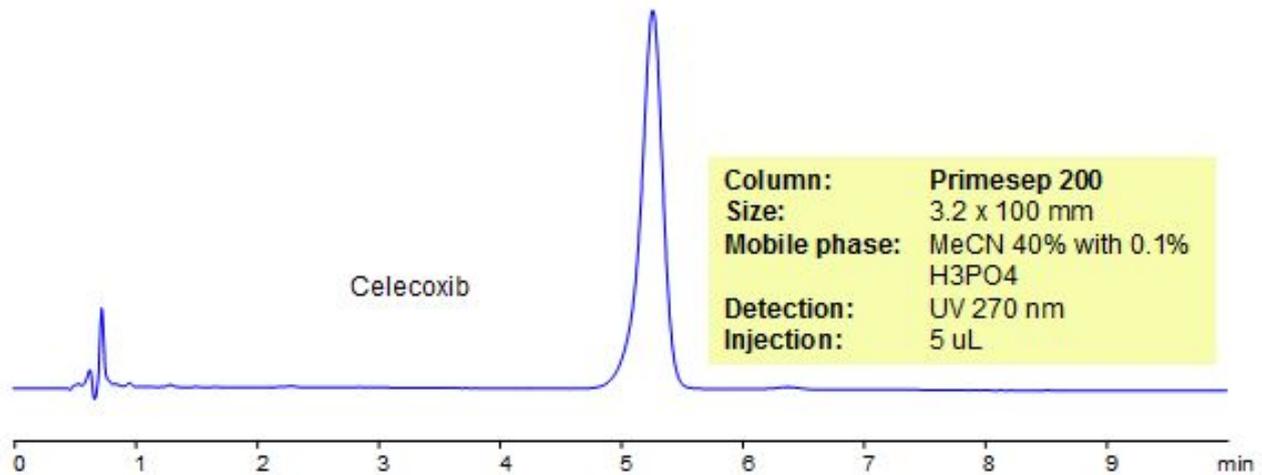


## HPLC Method for Analysis of Celebrex



Celebrex, also known by its generic name celecoxib, is a nonsteroidal anti-inflammatory drug (NSAID) primarily used to treat pain and inflammation associated with various conditions such as arthritis, menstrual pain, and other acute pain conditions.

Celebrex works by selectively inhibiting the enzyme cyclooxygenase-2 (COX-2), which plays a key role in the production of prostaglandins. Prostaglandins are chemicals in the body that promote inflammation, pain, and fever. By blocking COX-2, Celebrex reduces the levels of these chemicals, thereby alleviating pain and inflammation.

Celebrex may interact with:

Celebrex is an effective medication for managing pain and inflammation in various conditions. However, it should be used with caution due to its potential side effects and interactions. It's important to follow the prescribed dosage and consult with a healthcare provider regarding any concerns or preexisting conditions that may affect its use.

Celebrex can be retained, and analyzed using a Primesep 200 mixed-mode stationary phase column. The analysis utilizes an gradient method with a simple mobile phase consisting of water, acetonitrile (MeCN), and phosphoric acid as a buffer. Detection is achieved using UV 270 nm

### Method Parameters

|              |  |
|--------------|--|
| Column       | Primesep 200, 3.2x100 mm, 5 µm, 100 Å  |
| Mobile Phase | MeCN – 40%                             |
| Buffer       | H <sub>3</sub> PO <sub>4</sub> – 0.1%, |
| Flow Rate    | 0.5 mL/min                             |
| Detection    | UV, 270 nm                             |

Quelle: <https://sielc.com/hplc-method-for-analysis-of-celebrex>