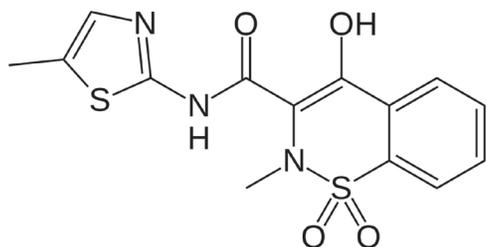
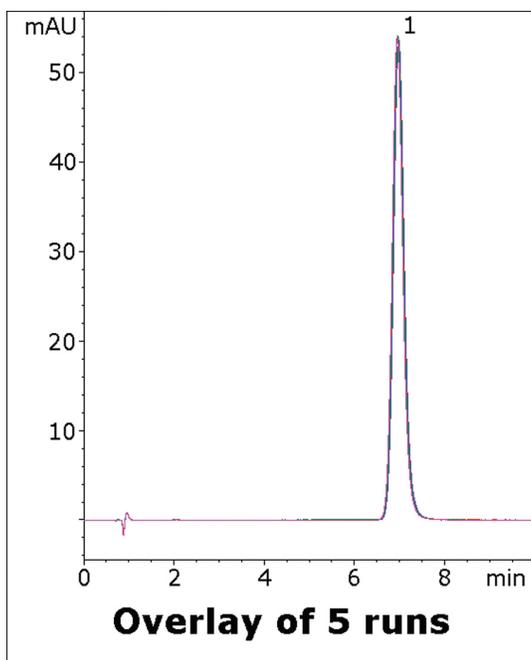


# Meloxicam Tablet

## Rapid, reliable isocratic method



Meloxicam

**Note:** Meloxicam is a non-steroidal anti-inflammatory drug which is used for treatment of various inflammatory illnesses, including osteoarthritis and rheumatoid arthritis. It acts by inhibition of cyclooxygenase, which catalyzes the conversion of arachidonic acid to prostaglandin H<sub>2</sub>. In this manner, it interferes with the synthesis of prostaglandins, which mediate inflammation.

### Method Conditions

**Column:** Cogent UDC-Cholesterol™, 4µm, 100Å

**Catalog No.:** 69069-7.5P

**Dimensions:** 4.6 x 75 mm

**Mobile Phase:** 60% DI H<sub>2</sub>O / 40% acetonitrile / 0.1% formic acid (v/v)

**Injection vol.:** 10µL

**Flow rate:** 1.0 mL/min

**Detection:** UV 362 nm

**Sample: Stock Solution:** 15 mg strength tablet was ground and added to 50 mL volumetric flask containing a portion of the mobile phase as diluent. It was sonicated 10 min and diluted to mark. A portion was filtered through a 0.45µm nylon membrane (MicroSolv Tech Corp.).

**Working Solution:** The stock solution was diluted 1:10 with the mobile phase diluent.

**Peaks:** 1. Meloxicam

### Discussion

The USP assay method for meloxicam uses a phosphate-based mobile phase. In this application note, a 0.1% formic acid additive is chosen instead in order to make the method LC-MS compatible. System suitability requires a tailing factor of not more than 2.0 be obtained for the API. With the Cogent UDC-Cholesterol column, a highly symmetrical peak shape is obtained. The method is easy to perform and is suitable for routine assay of meloxicam tablet formulations.