

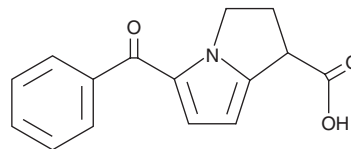
# PRODUCT INFORMATION



## Ketorolac

Item No. 9001148

**CAS Registry No.:** 74103-06-3  
**Formal Name:** 5-benzoyl-2,3-dihydro-1H-pyrrolizine-1-carboxylic acid  
**Synonym:** RS 37619  
**MF:** C<sub>15</sub>H<sub>13</sub>NO<sub>3</sub>  
**FW:** 255.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 245, 312 nm  
**Supplied as:** A crystalline solid  
**Storage:** Room temperature  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ketorolac is supplied as a crystalline solid. A stock solution may be made by dissolving the ketorolac in the solvent of choice, which should be purged with an inert gas. Ketorolac is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml.

### Description

Ketorolac is a non-steroidal anti-inflammatory drug (NSAID) and a non-selective COX inhibitor (IC<sub>50</sub> = 20 nM for both COX-1 and COX-2).<sup>1</sup> It prevents increases in paw swelling, increases paw withdrawal latency in a hot-plate test, and decreases prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) levels in paw tissue in a mouse model of carrageenan-induced inflammation when administered at a dose of 30 mg/kg. Ketorolac is a racemic mixture containing the active (S)-ketorolac (Item No. 11348) and inactive (R)-ketorolac enantiomers. Formulations containing ketorolac have been used to manage postoperative pain and as ophthalmic solutions to treat ocular pain and inflammation.

### Reference

1. Zhang, Y., Shaffer, A., Portanova, J., et al. Inhibition of cyclooxygenase-2 rapidly reverses inflammatory hyperalgesia and prostaglandin E<sub>2</sub> production. *J. Pharmacol. Exp. Ther.* **283**(3), 1069-1075 (1997).

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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