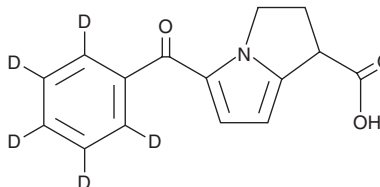


PRODUCT INFORMATION



Ketorolac-d₅ Item No. 26454

CAS Registry No.: 1215767-66-0
Formal Name: 5-(benzoyl-d₅)-2,3-dihydro-1H-pyrrolizine-1-carboxylic acid
MF: C₁₅H₈D₅NO₃
FW: 260.3
Chemical Purity: ≥98% (Ketorolac)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Ketorolac-d₅ is intended for use as an internal standard for the quantification of ketorolac (Item No. 9001148) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Ketorolac-d₅ is supplied as a solid. A stock solution may be made by dissolving the ketorolac-d₅ in the solvent of choice, which should be purged with an inert gas. Ketorolac-d₅ is slightly soluble in methanol and chloroform.

Description

Ketorolac is a non-steroidal anti-inflammatory drug (NSAID) and a non-selective COX inhibitor (IC₅₀ = 20 nM for both COX-1 and COX-2).¹ It prevents increases in paw swelling, increases paw withdrawal latency in a hot-plate test, and decreases prostaglandin E₂ (PGE₂) 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 E₂ 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.

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