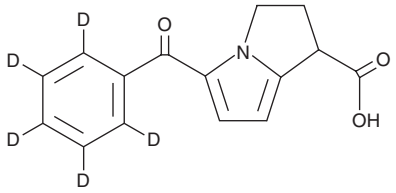
PRODUCT INFORMATION

Ketorolac-d_5

Item No. 26454

CAS Registry No.: 1215767-66-0
Formal Name: 5-(benzoyl-d_5)-2,3-dihydro-1H-pyrrolizine-1-carboxylic acid
MF: $C_{15}H_8D_5NO_3$
FW: 260.3
Chemical Purity: ≥98% (Ketorolac)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤1% d_0
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-d_5 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-d_5 is supplied as a solid. A stock solution may be made by dissolving the ketorolac-d_5 in the solvent of choice, which should be purged with an inert gas. Ketorolac-d_5 is slightly soluble in methanol and chloroform.

Description

Ketorolac is a non-steroidal anti-inflammatory drug (NSAID) and a non-selective COX inhibitor (IC_{50} = 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 E_2 (PGE_2) 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_2 production. *J. Pharmacol. Exp. Ther.* **283(3)**, 1069-1075 (1997).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM