## **Product** Data Sheet

## Ketorolac-d<sub>5</sub>

 Cat. No.:
 HY-B0580S

 CAS No.:
 1215767-66-0

 Molecular Formula:
  $C_{15}H_8D_5NO_3$ 

Molecular Weight: 260.3

Target: COX

Pathway: Immunology/Inflammation

**Storage:** Powder -20°C 3 years

 $\begin{tabular}{ll} 4 \begin{tabular}{ll} 4 \begin{tabular}{ll} C & 2 \ years \\ In \ solvent & -80 \begin{tabular}{ll} C & 6 \ months \\ \end{tabular}$ 

-20°C 1 month

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 25 mg/mL (96.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.8417 mL	19.2086 mL	38.4172 mL
	5 mM	0.7683 mL	3.8417 mL	7.6834 mL
	10 mM	0.3842 mL	1.9209 mL	3.8417 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline) Solubility:  $\geq$  2.5 mg/mL (9.60 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description Ketorolac-d<sub>5</sub> is a deuterium labeled Ketorolac. Ketorolac is a non-steroidal anti-inflammatory agent, acting as a nonselective COX inhibitor, with IC50s of 20 nM for COX-1 and 120 nM for COX-2[1].

 $\begin{array}{ccc} \mbox{IC}_{50} \& \mbox{Target} & \mbox{COX-1} & \mbox{COX-2} \\ & 20 \mbox{ nM (IC}_{50}) & \mbox{120 \mbox{ nM (IC}_{50})} \\ \end{array}$ 

FERENCES				
]. Waterbury LD, et al. Comparison of cyclooxygenase inhibitory activity and ocular anti-inflammatory effects of ketorolac tromethamine and bromfenac sodium. Cur led Res Opin. 2006 Jun;22(6):1133-40.				
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