## **Product** Data Sheet

Molecular Formula: C<sub>19</sub>H<sub>12</sub>D<sub>4</sub>ClNO<sub>4</sub>

Molecular Weight: 361.81

Target: COX; Autophagy; Isotope-Labeled Compounds

Pathway: Immunology/Inflammation; Autophagy; Others

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 6 months

-20°C 1 month

**BIOLOGICAL ACTIVITY** 

Indomethacin-d<sub>4</sub> is a deuterium labeled Indomethacin. Indomethacin is a potent, blood-brain permeable and nonselective inhibitor of COX1 and COX2, with IC50s of 18 nM and 26 nM for human COX-1 and COX-2, respectively, in CHO cells[1]. Indomethacin disrupts autophagic flux by disturbing the normal functioning of lysosomes[2].

IC<sub>50</sub> & Target Human COX-1 Human COX-2

18 nM (IC<sub>50</sub>, in CHO cells) 26 nM (IC<sub>50</sub>, in CHO cells)

## **REFERENCES**

[1]. Riendeau D, et al. Biochemical and pharmacological profile of a tetrasubstituted furanone as a highly selective COX-2 inhibitor. Br J Pharmacol. 1997 May;121(1):105-17.

[2]. Jorge Vallecillo-Hernández, et al. Indomethacin Disrupts Autophagic Flux by Inducing Lysosomal Dysfunction in Gastric Cancer Cells and Increases Their Sensitivity to Cytotoxic Drugs. Sci Rep. 2018 Feb 26;8(1):3593.

Caution: Product has not been fully validated for medical applications. For research use only.

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