

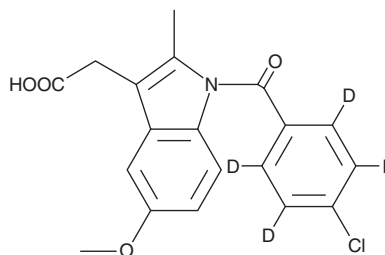
# PRODUCT INFORMATION



## Indomethacin-d<sub>4</sub>

Item No. 25434

**CAS Registry No.:** 87377-08-0  
**Formal Name:** 1-(4-chlorobenzoyl-2,3,5,6-d<sub>4</sub>)-5-methoxy-2-methyl-1H-indole-3-acetic acid  
**MF:** C<sub>19</sub>H<sub>12</sub>ClD<sub>4</sub>NO<sub>4</sub>  
**FW:** 361.8  
**Chemical Purity:** ≥98% (Indomethacin)  
**Deuterium**  
**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A 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

Indomethacin-d<sub>4</sub> is intended for use as an internal standard for the quantification of indomethacin (Item No. 70270) 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).

Indomethacin-d<sub>4</sub> is supplied as a solid. A stock solution may be made by dissolving the indomethacin-d<sub>4</sub> in the solvent of choice. Indomethacin-d<sub>4</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of indomethacin-d<sub>4</sub> in these solvents is approximately 7, 18, and 20 mg/ml, respectively.

### Description

Indomethacin is a non-selective COX inhibitor (IC<sub>50</sub>s = 1.67 and 24.6 μM for human COX-1 and COX-2, respectively).<sup>1</sup> It reduces filter paper-disc induced growth of granulation tissue, a marker of inflammation, in chick chorioallantoic membranes.<sup>2</sup> Indomethacin reduces ocular inflammation induced by bovine serum in rabbits.<sup>3</sup> It also reduces paw edema in a rat model of carrageenan-induced inflammation.<sup>4</sup>

### References

1. Barnett, J., Chow, J., Ives, D., *et al.* Purification, characterization and selective inhibition of human prostaglandin G/H synthase 1 and 2 expressed in the baculovirus system. *Biochim Biophys. Acta.* **1209**(1), 130-139 (1994).
2. D'Arcy, P.F. and Howard, E.M. A new anti-inflammatory test, utilizing the chorio-allantoic membrane of the chick embryo. *Br. J. Pharmacol. Chemother.* **29**(3), 378-387 (1967).
3. Hanna, C. and Keatts, H.C. Indomethacin in ocular inflammation in rabbits. *Arch. Ophthalmol.* **77**(4), 554-558 (1967).
4. Winter, C.A., Risley, E.A., and Silber, R.H. Antiinflammatory activity of indomethacin and plasma corticosterone in rats. *J. Pharmacol. Exp. Ther.* **162**(1), 196-201 (1968).

#### 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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