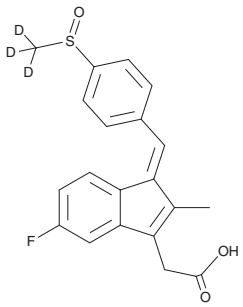
PRODUCT INFORMATION

Sulindac-d_3

Item No. 33381

Formal Name:	5-fluoro-2-methyl-1Z-[[4-(methylsulfinyl-d_3)phenyl]methylene]-1H-indene-3-acetic acid
MF:	$C_{20}H_{14}D_3FO_3S$
FW:	359.4
Chemical Purity:	≥98% (Sulindac)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_3); ≤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

Sulindac-d_3 is intended for use as an internal standard for the quantification of sulindac (Item No. 10004386) 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).

Sulindac-d_3 is supplied as a solid. A stock solution may be made by dissolving the sulindac-d_3 in the solvent of choice, which should be purged with an inert gas. Sulindac-d_3 is soluble in methanol and DMSO.

Description

Sulindac is a non-steroidal anti-inflammatory drug (NSAID), selective COX-2 inhibitor (IC_{50}s = 0.79 and >1,000 µM for COX-2 and COX-1, respectively), and prodrug form of sulindac sulfide (Item No. 10004387).[1-4] Sulindac is reduced by intestinal bacteria to form sulindac sulfide.[1] It inhibits acetic acid-induced writhing in mice and reduces paw edema induced by carrageenan in rats when administered at a dose of 100 mg/kg.[3] Sulindac (60 mg/kg) reduces tumor growth in MiaPaCa-2 and BxPC-3 mouse xenograft models.[4] Formulations containing sulindac have been used in the treatment of pain associated with arthritis, ankylosing spondylitis, and gout.

References

1. Maseda, D. and Ricciotti, E. NSAID–gut microbiota interactions. *Front. Pharmacol.* **11**, 1153 (2020).
2. Grossman, C.J., Wiseman, J., Lucas, F.S., *et al.* Inhibition of constitutive and inducible cyclooxygenase activity in human platelets and mononuclear cells by NSAIDs and Cox 2 inhibitors. *Inflamm. Res.* **44(6)**, 253-257 (1995).
3. Bhat, M.A., Al-Omar, M.A., Alsaif, N.A., *et al.* Novel sulindac derivatives: Synthesis, characterisation, evaluation of antioxidant, analgesic, anti-inflammatory, ulcerogenic and COX-2 inhibition activity. *J. Enzyme Inhib. Med. Chem.* **35(1)**, 921-934 (2020).
4. Yip-Schneider, M.T., Wu, H., Ralstin, M., *et al.* Suppression of pancreatic tumor growth by combination chemotherapy with sulindac and LC-1 is associated with cyclin D1 inhibition *in vivo*. *Mol. Cancer Ther.* **6(6)**, 1736-1744 (2007).

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