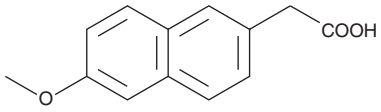
PRODUCT INFORMATION

6-methoxy Naphthalene Acetic Acid

Item No. 70620

CAS Registry No.: 23981-47-7
Formal Name: 6-methoxy-2-Naphthaleneacetic acid
Synonym: 6-MNA
MF: $C_{13}H_{12}O_3$
FW: 216.2
Purity: ≥99%
UV/Vis.: λ_{max}: 231 nm
Supplied as: A crystalline 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

6-methoxy Naphthalene acetic acid (6-MNA) is supplied as a crystalline solid. A stock solution may be made by dissolving the 6-MNA in the solvent of choice, which should be purged with an inert gas. 6-MNA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 6-MNA in these solvents is approximately 55, 24, and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 6-MNA can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 6-MNA in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

6-MNA is a competitive, non-selective COX inhibitor.[1-3] The K_i values for ovine COX-1 and -2 are 21 and 19 µM, respectively.[2] The 50% B/B_0 values are 70 and 20 µM for human recombinant COX-1 and -2, respectively.[1]

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 bacculovirus system. *Biochim. Biophys. Acta* **1209**, 130-139 (1994).
2. Johnson, J.L., Wimsatt, J., Buckel, S.D., *et al.* Purification and characterization of prostaglandin H synthase-2 from sheep placental cotyledons. *Arch. Biochem. Biophys.* **324**, 26-34 (1995).
3. Laneuville, O., Breuer, D.K., DeWitt, D.L., *et al.* Differential inhibition of human prostaglandin endoperoxide H synthases-1 and -2 by nonsteroidal anti-inflammatory drugs. *J. Pharmacol. Exp. Ther.* **271**, 927-934 (1994).

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