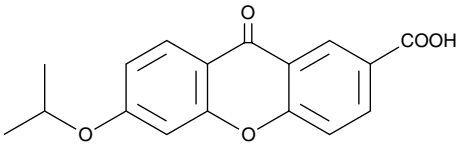
Product Information

AH 6809

Item No. 14050

CAS Registry No.: 33458-93-4
Formal Name: 6-isopropoxy-9-oxoxanthene-2-carboxylic acid
MF: $C_{17}H_{14}O_5$
FW: 298.3
Purity: ≥98%
Stability: ≥2 years at 4°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 244, 305 nm



Laboratory Procedures

For long term storage, we suggest that AH 6809 be stored as supplied at 4°C. It should be stable for at least two years.

AH 6809 is supplied as a crystalline solid. A stock solution may be made by dissolving the AH 6809 in an organic solvent. AH 6809 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of AH 6809 in these solvents is approximately 0.5, 1, and 8 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 AH 6809 can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of AH 6809 in PBS (pH 7.2) is approximately 0.34 mg/ml. For greater aqueous solubility, AH 6809 can be directly dissolved in 0.1 M Na_2CO_3 (4 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

AH 6809 is an EP and DP receptor antagonist with nearly equal affinity for the cloned human EP_1, EP_2, $EP_{3\text{-III}}$, and DP_1 receptors.[1] AH 6809 blocks the PGE_2-induced accumulation of cAMP in COS cells transfected with the human EP_2 receptor.[2] It also blocks the accumulation of Ca^{2+} in Xenopus oocytes expressing the human EP_1 receptor.[3] In the human and guinea pig, the activity profile of AH 6809 is similar to that of SC-19220, but somewhat more potent.[4] In the mouse, AH 6809 has the highest affinity for the EP_2 receptor,[5] but also acts as a weak antagonist at the murine EP_1 and DP_1 receptors. In whole human platelets, AH 6809 is an effective antagonist of the antiaggregatory actions of PGD_2, but not PGI_2, with an EC_{50} value of about 5 x 10^{-5} M.[6]

References

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3. Funk, C.D., Furci, L., Fitzgerald, G.A., *et al.* Cloning and expression of a cDNA for the human prostaglandin E receptor EP_1 subtype. *J. Biol. Chem.* **268**, 26767-26772 (1993).
4. Coleman, R.A., Kennedy, I., and Sheldrick, R.L.G. AH6809, a prostanoid EP_1 receptor blocking drug. *Br. J. Pharmacol.* **85**, 273P (1985).
5. Kiriyama, M., Ushikubi, F., Kobayashi, T., *et al.* Ligand binding specificities of the eight types and subtypes of the mouse prostanoid receptors expressed in Chinese hamster ovary cells. *Br. J. Pharmacol.* **122**, 217-224 (1997).
6. Keery, R.J. and Lumley, P. AH6809, a prostaglandin DP-receptor blocking drug on human platelets. *Br. J. Pharmacol.* **94**, 745-754 (1988).

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