

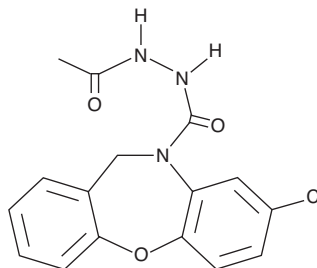
Product Information



SC-19220

Catalog No. 14060

CAS Registry No.: 19395-87-0
Formal Name: 8-chloro-dibenz[b,f][1,4]oxazepine-10(11H)-carboxy-(2-acetyl)hydrazide
MF: C₁₆H₁₄ClN₃O₃
FW: 331.8
Purity: ≥96%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that SC-19220 be stored as supplied at -20°C. It will be stable for at least one year.

SC-19220 is supplied as a crystalline solid. A stock solution may be made by dissolving the SC-19220 in an organic solvent. SC-19220 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of SC-19220 in these solvents is approximately 14 mg/ml.

SC-19220 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SC-19220 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SC-19220 has a solubility of approximately 300 µg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

SC-19220 is a dibenzoxazepine which acts as a selective antagonist of prostaglandin E₂ (PGE₂) at the EP₁ receptor.^{1,2} At doses between 0.3-300 µM, SC-19220 acts as a competitive antagonist of PGE₂-induced smooth muscle contractions of guinea pig ileum and stomach.^{3,4} SC-19220 acts as a PGE₂ antagonist in the EP₁ receptor mediated contraction of guinea pig trachea.⁵ SC-19220 displaces radiolabeled PGE₂ from the cloned human EP₁ receptor with an IC₅₀ of 6.7 µM and exhibits no binding at the human EP₂ receptor.^{6,7} It binds very weakly and shows no selectivity for the mouse EP₁ receptor, suggesting species differences between the human and mouse EP₁ receptors.⁸

References

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3. Rakovska, A. and Milenov, K. Antagonistic effect of SC-19220 on the responses of guinea-pig gastric muscles to prostaglandins E₁, E₂, and F_{2α}. *Arch. Int. Pharmacodyn.* **268**, 59-69 (1984).
4. Sanner, J. Prostaglandin Inhibition with a dibenzoxazepine hydrazide derivative and morphine. *Ann. N. Y. Acad. Sci.* **180**, 396-409 (1971).
5. Coleman, R.A. and Kennedy, I. Characterisation of the prostanoid receptors mediating contraction of guinea-pig isolated trachea. *Prostaglandins* **29**, 363-375 (1985).
6. Funk, C.D., Furci, L., Fitzgerald, G.A., *et al.* Cloning and expression of a cDNA for the human prostaglandin E receptor EP₁ subtype. *J. Biol. Chem.* **268**, 26767-26772 (1993).
7. Bastien, L., Sawyer, N., Grygorczyk, R., *et al.* Cloning, functional expression, and characterization of the human prostaglandin E₂ receptor EP₂ subtype. *J. Biol. Chem.* **269**, 11873-11877 (1994).
8. Kiriya, 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).

Related Products

Prostaglandin E₂ - Cat. No. 14010 • EP₁ Receptor Polyclonal Antibody - Cat. No. 101740 • EP₂ Receptor Polyclonal Antibody - Cat. No. 101750 • EP₄ Receptor (N-Term) Polyclonal Antiserum - Cat. No. 101770

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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