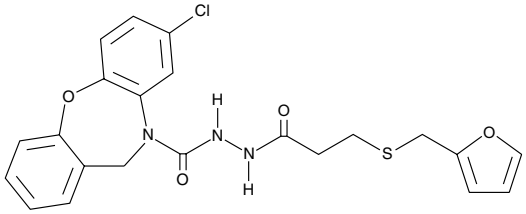
Product Information

SC-51322

Item No. 10010744

CAS Registry No.: 146032-79-3
Formal Name: 8-chloro-2-[3-[(2-furanylmethyl)thio]-1-oxopropyl]hydrazide, dibenz[b,f][1,4]oxazepine-10(11H)-carboxylic acid
MF: $C_{22}H_{20}ClN_3O_4S$
FW: 457.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that SC-51322 be stored as supplied at -20°C. It should be stable for at least two years.

SC-51322 is supplied as a crystalline solid. A stock solution may be made by dissolving the SC-51322 in the solvent of choice. SC-51322 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of SC-51322 is approximately 30 mg/ml in ethanol and approximately 20 mg/ml in DMSO and DMF.

SC-51322 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SC-51322 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SC-51322 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The prostaglandin E_2 (PGE_2) receptor EP_1 is involved in triggering PGE_2-mediated pain as well as neuronal survival and growth. SC-51322 is a selective EP_1 antagonist that inhibits PGE_2 signaling in a guinea pig ileum muscle strip assay with a pA_2 value of 8.1 and demonstrates analgesic activity in a mouse writhing assay with an ED_{50} value of 0.9 mg/kg.[1] It is pharmacologically similar to SC-51089, but does not release hydrazine, a known carcinogen to rats, as does SC-51089.[1] SC-51322 potentiates the vasorelaxation of human pulmonary vein induced by PGE_2 with an EC_{50} value of 7.75 µM.[2]

References

1. Hallinan, E.A., Hagen, T.J., Tsymbalov, S., *et al.* Aminoacetyl moiety as a potential surrogate for diacylhydrazine group of SC-51089, a potent PGE_2 antagonist, and its analogs. *J. Med. Chem.* **39**, 609-613 (1996).
2. Foudi, N., Kotelevets, L., Louedec, L., *et al.* Vasorelaxation induced by prostaglandin E_2 in human pulmonary vein: Role of the EP_4 receptor subtype. *Br. J. Pharmacol.* **154**, 1631-1639 (2008).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10010744

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com