

PRODUCT INFORMATION

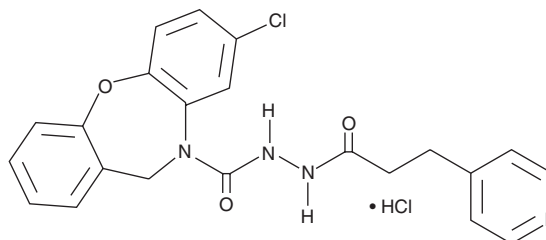


SC-51089

Item No. 10011561

CAS Registry No.: 146033-02-5
Formal Name: 8-chloro-2-[1-oxo-3-(4-pyridinyl)propyl]hydrazide-dibenz[b,f][1,4]oxazepine-10(11H)-carboxylic acid, monohydrochloride

Synonym: CID-132748
MF: C₂₂H₁₉ClN₄O₃ • HCl
FW: 459.3
Purity: ≥95%
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

SC-51089 is supplied as a crystalline solid. A stock solution may be made by dissolving the SC-51089 in the solvent of choice, which should be purged with an inert gas. SC-51089 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SC-51089 in DMSO is approximately 20 mg/ml and approximately 30 mg/ml in ethanol and DMF.

SC-51089 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SC-51089 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SC-51089 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SC-51089 is an antagonist of the prostaglandin E₂ (PGE₂) receptor subtype EP₁ (K_i = 1.332 μM).¹ It is selective for EP₁ over EP₂, EP₃, and EP₄ (K_is = >100, 17.5, and >100 μM, respectively), as well as the PGD₂ receptor DP, PGF_{2α} receptor FP, PGI₂ receptor IP, and thromboxane A₂ receptor TP (K_is = >100, 61.13, >100, and 11.18 μM, respectively). SC-51089 (10-50 μM) decreases cell death induced by amyloid-β 1-42 (Aβ42) in MC65 human neuroblastoma cells.² It inhibits the growth of KMG-4 glioma cells *in vitro* (IC₅₀ = ~1 μM) and reduces tumor growth in a KMG4 mouse xenograft model when administered at a dose of 25 mg/kg.³ SC-51089 also reduces phenylbenzoquinone-induced writhing in mice (ED₅₀ = 6.8 mg/kg).⁴

References

1. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483(2)**, 285-293 (2000).
2. Li, X., Rose, S.E., Montine, K.S., *et al.* Antagonism of neuronal prostaglandin E₂ receptor subtype 1 mitigates amyloid β neurotoxicity *in vitro*. *J. Neuroimmune Pharmacol.* **8(1)**, 87-93 (2016).
3. Matsuo, M., Yoshida, N., Zaitso, M., *et al.* Inhibition of human glioma cell growth by a PHS-2 inhibitor, NS398, and a prostaglandin E receptor subtype EP1-selective antagonist, SC51089. *J. Neurooncol.* **66**, 285-292 (2004).
4. Hallinan, E.A., Hagen, T.J., Husa, R.K., *et al.* N-substituted dibenzoxazepines as analgesic PGE₂ antagonists. *J. Med. Chem.* **36**, 3293-3299 (1993).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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