Siramesine hydrochloride

Cat. No.: HY-14221A

CAS No.: 224177-60-0

Molecular Formula: $C_{30}H_{32}ClFN_2O$

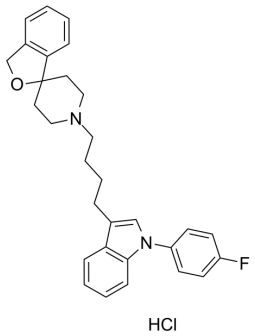
Molecular Weight: 491.04

Target: Sigma Receptor; Ferroptosis

Pathway: Neuronal Signaling; Apoptosis

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 42 mg/mL (85.53 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0365 mL	10.1825 mL	20.3649 mL
5 mM	0.4073 mL	2.0365 mL	4.0730 mL
10 mM	0.2036 mL	1.0182 mL	2.0365 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.09 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.09 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.09 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Siramesine (Lu 28-179) hydrochloride is a potent sigma-2 receptor agonist. Siramesine hydrochloride has a subnanomolar affinity for sigma-2 receptors (IC_{50}=0.12 nM) and exhibits a 140-fold selectivity for sigma-2 receptors over sigma-1 receptors (IC_{50}=17 nM). Siramesine hydrochloride triggers cell death through destabilisation of mitochondria, but not lysosomes. Anti-cancer activity[1][2][3].

In Vitro

Siramesine hydrochloride displays the binding affinities: IC_{50} (sigma 1)=17 nM, IC_{50} (sigma 2)=0.12 nM, IC_{50} (5-HT_{1A})=21000 nM, IC_{50} (5-HT_{1A})=2000 nM, IC_{50} (D_2)=800 nM, IC_{50} (alpha 1)=330 nM[1].

Siramesine (0-50μM; 8 hours) hydrochloride induces cell death in various cell lines (HaCaT, Hsc-4, HeLa and MCF-7,

neuroblastoma cell line SH-SY5Y and glioblastoma cell line U-87MG)[2].
Siramesine (0-40 μM; 2-48 hours) hydrochloride activates caspases in HaCaT and in U-87MG cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Pharmacol Exp Ther. 2015 Aug;354(2):203-12.
- Patent. US20220305013A1.

See more customer validations on www.MedChemExpress.com

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA