Data Sheet (Cat.No.T5129)

TargetMol

SRI-011381 hydrochloride

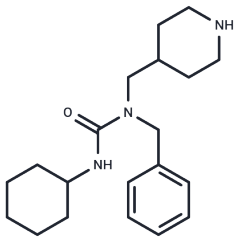
Chemical Properties

CAS No. : 2070014-88-7

Formula: C20H32ClN3O

Molecular Weight: 365.94

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	SRI-011381 hydrochloride, a new-type agonist of the TGF-beta signaling pathway, is utilized in the treatment of Alzheimer's disease.
Targets(IC50)	TGF-beta/Smad
In vitro	SRI-11381 is neuroprotective. SRI-011381 promote fibrillar Aβ clearance by macrophages, as demonstrated by the dose-dependent decreases of Aβ in the conditioned medium derived from compound-treated macrophages.
In vivo	SRI-011381 protects mice against kainic acid-induced excitotoxicity and neurodegeneration. SRI-011381 (30 mg/kg, dissolved in DMSO) is injected (i.p.) into the SBE-luc mice. SRI-011381 is rapidly absorbed after oral administration to FBV mice with an oral bioavailability of approximately 50%. SRI-011381 by oral gavage of 10, 30, and 75 mg/kg for 14 days resulted in significant changes in hematological endpoints, most notably reductions in red blood cells, hematocrit and hemoglobin. SRI-011381 reduces neurodegeneratio in APP751Lon, Swetransgenic mice.

Solubility Information

Solubility	DMSO: 34.29 mg/mL (93.7 mM),Sonication is recommended. H2O: 76.92 mg/mL (210.2 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.47 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7327 mL	13.6634 mL	27.3269 mL
5 mM	0.5465 mL	2.7327 mL	5.4654 mL
10 mM	0.2733 mL	1.3663 mL	2.7327 mL
50 mM	0.0547 mL	0.2733 mL	0.5465 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Benzyl urea derivatives for activating tgf-beta signaling. US 20160039756 A1. 2016. Feb
Yao Z, Zhang F, Qi C, et al.SECTM1 promotes the development of glioblastoma and mesenchymal transition by regulating the TGFβ1/Smad signaling pathway.International Journal of Biological Sciences.2024, 20(1): 78-93.
Dai D, Li C, Xia H, et al.SVIL promotes ovarian cancer progression and epithelial-mesenchymal transition under hypoxic conditions through the TGF-β/Smad pathway.Gynecologic Oncology.2024, 190: 167-178.