

DS-1971a

Chemical Properties

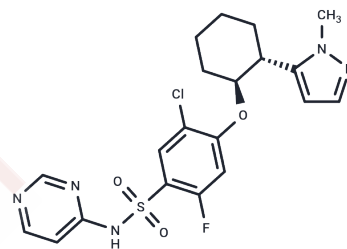
CAS No. : 1450595-86-4

Formula: C₂₀H₂₁ClFN₅O₃S

Molecular Weight: 465.93

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	DS-1971a is a highly potent and selective NaV1.7 inhibitor. DS-1971a exhibits a favorable toxicological profile and analgesic effects.
Targets(IC50)	Sodium Channel
In vitro	DS-1971a showed high NaV1.7 inhibitory potency in vitro. The IC50 values are of 22.8 nM for hNav1.7 and 59.4 mM for mNav1.7[1].
In vivo	DS-1971a (0.1-1 mg/kg; p.o.) shows mitigated thermal hyperalgesia in a dose-dependent manner in partial sciatic nerve ligation (PSL) mice with ED50 of 0.32 mg/kg [1].

Solubility Information

Solubility	DMSO: 100 mg/mL (214.62 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: 4 mg/mL (8.58 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1462 mL	10.7312 mL	21.4625 mL
5 mM	0.4292 mL	2.1462 mL	4.2925 mL
10 mM	0.2146 mL	1.0731 mL	2.1462 mL
50 mM	0.0429 mL	0.2146 mL	0.4292 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

Shinozuka T, et al. Discovery of DS-1971a, a Potent, Selective NaV1.7 Inhibitor [published online ahead of print, 2020 May 26]. J Med Chem. 2020;10.1021/acs.jmedchem.0c00259.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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