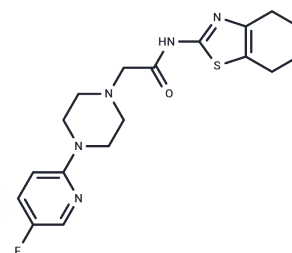


FATP1-IN-1

Chemical Properties

CAS No. :	1431945-95-7
Formula:	C18H22FN5OS
Molecular Weight:	375.46
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	FATP1-IN-1 is a potent inhibitor of fatty acid transport protein 1 (FATP1). It effectively inhibits the activity of recombinant human or mouse acyl-CoA synthetase, which is essential for the function of FATP1. The inhibition is characterized by IC50 values of 0.046 μ M for human FATP1 and 0.60 μ M for mouse FATP1.
Targets(IC50)	Others
In vivo	FATP1-IN-1 administered orally (p.o.) at a dosage of 10 mg/kg demonstrated pharmacokinetic parameters with a maximum concentration (C max) of 5.5 μ g/mL, an area under the curve (AUC) of 36 μ g h/mL, and a time to reach maximum concentration (T max) of 0.33 hours. These results were attained in a mouse plasma [1] model and surpassed the IC 50 value of 0.22 μ M for mice, without accounting for plasma protein binding.

Solubility Information

Solubility	DMSO: 27.78 mg/mL (73.99 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 2.78 mg/mL (7.4 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2.78 mg/mL (7.4 mM), Solution. <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	2.6634 mL	13.317 mL	26.634 mL
5 mM	0.5327 mL	2.6634 mL	5.3268 mL
10 mM	0.2663 mL	1.3317 mL	2.6634 mL
50 mM	0.0533 mL	0.2663 mL	0.5327 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

Matsufuji T, et al. Arylpiperazines as fatty acid transport protein 1 (FATP1) inhibitors with improved potency and pharmacokinetic properties. *Bioorg Med Chem Lett.* 2013;23(9):2560-2565.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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