

TAK-071

Chemical Properties

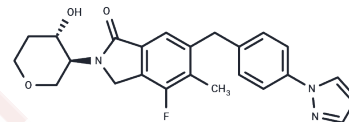
CAS No. : 1820812-16-5

Formula: C₂₄H₂₄FN₃O₃

Molecular Weight: 421.46

Storage: Store at low temperature, Keep away from moisture
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	TAK-071 is a potent, novel and highly selective modulator of muscarinic acetylcholine receptor 1 (M1R) positive allosteric (EC ₅₀ : 520 nM).
Targets(IC ₅₀)	AChR
In vivo	In rats, TAK-071 (0.3 mg/kg) increase hippocampal inositol monophosphate production through M1R activation and improved DB00747 -induced cognitive deficits, TAK-071 (10 mg/kg) also induce diarrhea .

Solubility Information

Solubility	DMSO: 134 mg/mL (317.94 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 (9.49 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	2.3727 mL	11.8635 mL	23.727 mL
5 mM	0.4745 mL	2.3727 mL	4.7454 mL
10 mM	0.2373 mL	1.1864 mL	2.3727 mL
50 mM	0.0475 mL	0.2373 mL	0.4745 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

Sako Y, et al. TAK-071, a novel M1 positive allosteric modulator with low cooperativity, improves cognitive function in rodents with few cholinergic side effects. *Neuropsychopharmacology*. 2018 Aug doi: 10.1038/s41386-018-0168-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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