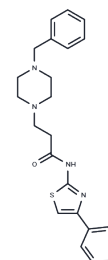


TJ-M2010-5

Chemical Properties

CAS No. : 1357471-57-8
 Formula: C₂₃H₂₆N₄O₅
 Molecular Weight: 406.54
 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	TJ-M2010-5 is a MyD88 inhibitor that binds to the TIR domain to interfere with its homodimerization and suppress MyD88 signaling. TJ-M2010-5 can be used in myocardial [ischemia/reperfusion] injury studies.
Targets(IC50)	MyD88
In vitro	TJ-M2010-5 (0 μM, 5 μM, 10 μM, 20 μM and 30 μM) prevents B cell proliferation and induces B cells apoptosis after stimulation with R848 (500 ng/mL)[1].
In vivo	TJ-M2010-5 statistically significantly decreases TNF-α, IL-6, G-CSF, MIP-1β, IL-11, IL-17A, IL-22, and IL-23 serum concentrations in mice at both two and seven weeks postinduction. In a 10-week CAC mouse model, TJ-M2010-5 statistically significantly reduces AOM/DSS-induced colitis and completely prevented CAC development with less related body mass loss, results in 0% mortality of treated mice, decreases cell proliferation, and increased apoptosis in colon tissue[2].

Solubility Information

Solubility	DMSO: 100 mg/mL (245.98 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: 3.3 mg/mL (8.12 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	2.4598 mL	12.2989 mL	24.5978 mL
5 mM	0.492 mL	2.4598 mL	4.9196 mL
10 mM	0.246 mL	1.2299 mL	2.4598 mL
50 mM	0.0492 mL	0.246 mL	0.492 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

Yan Miao, et al. Inhibition of MyD88 by a novel inhibitor reverses two-thirds of the infarct area in myocardial ischemia and reperfusion injury. *Am J Transl Res.* 2020 Sep 15;12(9):5151-5169.

Lin Xie, et al. Targeting of MyD88 Homodimerization by Novel Synthetic Inhibitor TJ-M2010-5 in Preventing Colitis-Associated Colorectal Cancer. *J Natl Cancer Inst.* 2015 Dec 28;108(4):djv364.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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