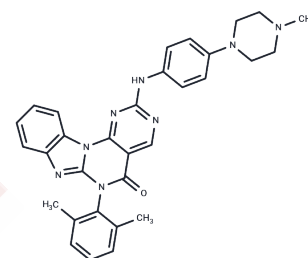


TC-S 7003

Chemical Properties

CAS No. : 847950-09-8
 Formula: C₃₁H₃₀N₈O
 Molecular Weight: 530.62
 Storage: Store at low temperature
 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	TC-S 7003 (Lck Inhibitor) is an orally active, selective and potent lymphocyte kinase (Lck) inhibitor with anti-inflammatory activity, inhibition of Lck, Lyn, Src, and Syk kinases, and inhibition of T-cell proliferation, and may be useful in the study of arthritis.
Targets(IC50)	Syk,Src
In vitro	TC-S 7003 exhibited good potency in the T-cell receptor-induced IL-2 secretion assay (IL-2) and also inhibited subsequent T-cell proliferation (T-cell prolif.) in the same human T-cells, IL-2, IC50=0.46 μM, T-cell prolif, IC50=0.53 μM. [1]
In vivo	A once-daily dose of TC-S 7003 was administered orally at 10, 30, and 60 mg/kg from day 9 to day 17. TC-S 7003 showed a dose-dependent inhibition of arthritis (ED50=24 mg/kg). [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (150.77 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 (6.22 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	1.8846 mL	9.4229 mL	18.8459 mL
5 mM	0.3769 mL	1.8846 mL	3.7692 mL
10 mM	0.1885 mL	0.9423 mL	1.8846 mL
50 mM	0.0377 mL	0.1885 mL	0.3769 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

Martin, Matthew W. et al. Structure-Based Design of Novel 2-Amino-6-phenyl-pyrimido[5',4':5,6]pyrimido[1,2-a]benzimidazol-5(6H)-ones as Potent and Orally Active Inhibitors of Lymphocyte Specific Kinase (Lck): Synthesis, SAR, and In Vivo Anti-Inflammatory Activity. *Journal of Medicinal Chemistry* (2008), 51(6), 1637-1648.

Liew, Chin Y. et al. SVM Model for Virtual Screening of Lck Inhibitors. *Journal of Chemical Information and Modeling* (2009), 49(4), 877-885.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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