

GNF362

Chemical Properties

CAS No. : 1003019-41-7

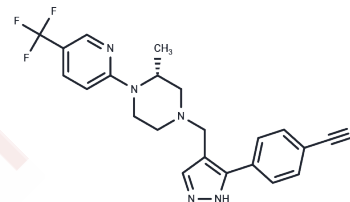
Formula: C₂₂H₂₁F₃N₆

Molecular Weight: 426.44

Store at low temperature

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	GNF362 is an orally available, selective and potent inhibitor of inositol trisphosphate 3'kinase B (ITPKB), inhibits Itpka and Itpkc, overcomes TMZ chemoresistance, and selectively deletes donor allogeneic reactive T-cells. GNF362 reverses the migratory stimulatory effects of ITPKA overexpression.
Targets(IC50)	Phosphatase
In vitro	GNF362 blocks Ins(1,3,4,5)P ₄ production, enhances antigen receptor-mediated Ca ²⁺ responses, and leads to apoptosis of activated T cells in an Itpkb-dependent manner, while augmenting SOC responses with an EC ₅₀ value of 12 nM[1].
In vivo	In the Lewis rat antigen-induced arthritis (rAIA) model, GNF362 (6 or 20 mg/kg; oral administration; twice daily; 21 days) reduced knee joint swelling in rats by 47% in the 20 mg/kg treatment group and by 34% in the 6 mg/kg treatment group [1].

Solubility Information

Solubility	Ethanol: 40 mg/mL (93.8 mM), Sonication is recommended. DMSO: 80 mg/mL (187.6 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 (7.74 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	2.345 mL	11.725 mL	23.450 mL
5 mM	0.469 mL	2.345 mL	4.690 mL
10 mM	0.2345 mL	1.1725 mL	2.345 mL
50 mM	0.0469 mL	0.2345 mL	0.469 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

Miller AT, et al. Conversion of antigen-specific effector/memory T cells into Foxp3-expressing Treg cells by inhibition of CDK8/19. *Sci Immunol*. 2019 Oct 25;4(40). pii: eaaw2707.

Yan, Y., et al. Suppression of ITPKB degradation by Trim25 confers TMZ resistance in glioblastoma through ROS homeostasis. *Sig Transduct Target Ther* 9, 58 (2024).

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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