

BIIB129

Chemical Properties

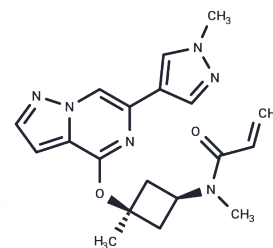
CAS No. : 2770960-52-4

Formula: C₁₉H₂₂N₆O₂

Molecular Weight: 366.42

Storage: Keep away from moisture, 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	BIIB129 is a selective and brain-penetrant BTK covalent inhibitor used to study B-cell proliferation-related diseases.
Targets(IC50)	BTK
In vitro	BIIB129 inhibited the activation and translocation of NF-κB to the nucleus in TMD8 cells, IC50 = 1.9 nM; In human peripheral blood mononuclear cells (PBMCs), IC50 = 13 nM inhibits anti-IGD-induced B-cell activation.
In vivo	A mouse model of oral BIIB129 (BID 0.1, 0.3, 1, 3.2, 10, and 31.7 mg/kg, respectively) showed a dose-dependent reduction in Ki67+ microglia proliferation and EC50 = 1.5 mg/kg.

Solubility Information

Solubility	DMSO: 80 mg/mL (218.33 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 (9.01 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	2.7291 mL	13.6455 mL	27.2911 mL
5 mM	0.5458 mL	2.7291 mL	5.4582 mL
10 mM	0.2729 mL	1.3646 mL	2.7291 mL
50 mM	0.0546 mL	0.2729 mL	0.5458 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

Himmelbauer MK, et al. Discovery and Preclinical Characterization of BIIB129, a Covalent, Selective, and Brain-Penetrant BTK Inhibitor for the Treatment of Multiple Sclerosis. J Med Chem. 2024 May 23;67(10):8122-8140.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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