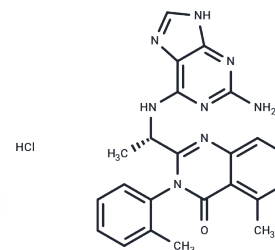


CAL-130 Hydrochloride

Chemical Properties

CAS No. :	1431697-78-7
Formula:	C ₂₃ H ₂₃ ClN ₈ O
Molecular Weight:	462.94
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	CAL-130 Hydrochloride is a PI3K δ and PI3K γ inhibitor (IC ₅₀ s: 1.3 and 6.1 nM).
Targets(IC ₅₀)	PI3K
In vitro	CAL-130 selectively inhibits the catalytic domains of p110 γ and p110 δ with IC ₅₀ s of 1.3 and 6.1 nM, respectively (115 and 56 nM for p110 α and p110 β), and does not affect other intracellular signaling pathways essential for cell function and survival, such as p38 MAPK or insulin receptor tyrosine kinase.
In vivo	The clinical significance of inhibiting PI3K γ and PI3K δ activities is assessed by administering CAL-130 to Lck/Pten ^{fl/fl} mice with established T cell acute lymphoblastic leukemia. Candidate mice, exhibiting illness, a white blood cell count above 45,000/ μ L, blasts on peripheral smear, and >75% Thy1.2 and Ki-67 double-positive circulating cells, receive an oral dose (10 mg/kg) of CAL-130 every 8 hours for 7 days and are monitored until moribund. Despite the limited duration of therapy, CAL-130 effectively extends median survival to 45 days compared to 7.5 days for the control group.

Solubility Information

Solubility	DMSO: 50 mg/mL (108.01 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 (7.13 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	2.1601 mL	10.8005 mL	21.6011 mL
5 mM	0.432 mL	2.1601 mL	4.3202 mL
10 mM	0.216 mL	1.0801 mL	2.1601 mL
50 mM	0.0432 mL	0.216 mL	0.432 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

Subramaniam Prem S, et al. Targeting nonclassical oncogenes for therapy in T-ALL. Cancer cell (2012), 21(4), 459-72.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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