

Stafib-2

Chemical Properties

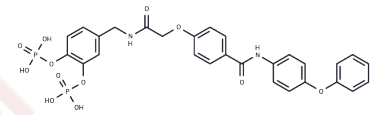
CAS No. : 2097938-74-2

Formula: C₂₈H₂₆N₂O₁₂P₂

Molecular Weight: 644.46

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	Stafib-2 is a potent and selective inhibitor of the transcription factor STAT5b, with IC ₅₀ values of 82 nM and 1.7 μM for STAT5b and STAT5a, respectively. Stafib-2 has poor cell permeability.
Targets(IC ₅₀)	STAT
In vitro	Stafib-2 (3-10 μM; 4-48 h) does not show significant activity in K562 and MDA-MB-231 cells.[1]

Solubility Information

Solubility	DMSO: 45 mg/mL (69.83 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: 2 mg/mL (3.1 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	1.5517 mL	7.7584 mL	15.5169 mL
5 mM	0.3103 mL	1.5517 mL	3.1034 mL
10 mM	0.1552 mL	0.7758 mL	1.5517 mL
50 mM	0.031 mL	0.1552 mL	0.3103 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

Elumalai N, et al. Rational development of Stafib-2: a selective, nanomolar inhibitor of the transcription factor STAT5b. *Sci Rep.* 2017;7(1):819.

Elumalai N, et al. Halogen-substituted catechol bisphosphates are potent and selective inhibitors of the transcription factor STAT5b. *Bioorg Med Chem.* 2017;25(14):3871-3882.

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