

Stafib-1

Chemical Properties

CAS No. : 1688703-26-5

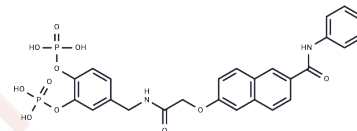
Formula: C₂₆H₂₄N₂O₁₁P₂

Molecular Weight: 602.42

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	Stafib-1 is a selective inhibitor of STAT5 β targeting SH2 domain with an IC ₅₀ of 154 nM and a K _i of 44 nM.
Targets(IC ₅₀)	STAT
In vitro	Stafib-1 inhibits STAT5 β with more than 50-fold selectivity over STAT5a[2].

Solubility Information

Solubility	DMSO: 95 mg/mL (157.7 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 (5.48 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	1.660 mL	8.2999 mL	16.5997 mL
5 mM	0.332 mL	1.660 mL	3.3199 mL
10 mM	0.166 mL	0.830 mL	1.660 mL
50 mM	0.0332 mL	0.166 mL	0.332 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, Natarajan K, Berg T. Halogen-substituted catechol bisphosphates are potent and selective inhibitors of the transcription factor STAT5b. *Bioorg Med Chem*. 2017 Jul 15;25(14):3871-3882.

Nagarajan Elumalai, et al. Rational development of Stafib-2: a selective, nanomolar inhibitor of the transcription factor STAT5b. *Sci Rep*. 2017 Apr 11;7(1):819.

Elumalai N, et al. Nanomolar inhibitors of the transcription factor STAT5b with high selectivity over STAT5a. *Angew Chem Int Ed Engl*. 2015 Apr 13;54(16):4758-63.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481