

GGTI-2418

Chemical Properties

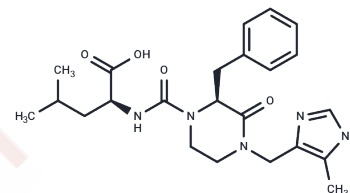
CAS No. : 501010-06-6

Formula: C₂₃H₃₁N₅O₄

Molecular Weight: 441.52

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	GGTI-2418 is a highly potent, competitive, and selective inhibitor of geranylgeranyltransferase I (GGTase I), exhibiting inhibitory activities with IC ₅₀ values of 9.5 nM for GGTase I and 53 μM for FTase, respectively. Additionally, it enhances p27 (Kip1) expression and induces significant regression of breast tumors.
Targets(IC ₅₀)	Apoptosis,Transferase
In vitro	In HeLa cells, GGTI-2418 (10-15 μM; 16 hours) can delocalize FBXL2 and stabilize IP3R3 [2].
In vivo	GGTI-2418 (100 mg/kg daily; 5 days) induces regression of ErbB2-driven mammary tumors in ErbB2 transgenic mice. GGTI-2418 inhibits the geranylgeranylation of Rap1, significantly reduces Akt S473 phosphorylation, and upregulates p27 levels in vivo. Additionally, GGTI-2418 (100 mg/kg daily or 200 mg/kg every third day; 15 days) significantly inhibits the growth of MDA-MB-231 breast tumor xenografts in nude mice.

Solubility Information

Solubility	DMSO: 100 mg/mL (226.49 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: 4 mg/mL (9.06 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	2.2649 mL	11.3245 mL	22.649 mL
5 mM	0.453 mL	2.2649 mL	4.5298 mL
10 mM	0.2265 mL	1.1325 mL	2.2649 mL
50 mM	0.0453 mL	0.2265 mL	0.453 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

Kazi A, et al. Blockade of protein geranylgeranylation inhibits Cdk2-dependent p27Kip1 phosphorylation on Thr187 and accumulates p27Kip1 in the nucleus: implications for breast cancer therapy. *Mol Cell Biol.* 2009 Apr;29(8):2254-63.

Kuchay S, et al. PTEN counteracts FBXL2 to promote IP3R3- and Ca

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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