

SU14813

Chemical Properties

CAS No. : 627908-92-3

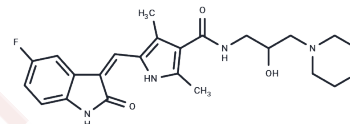
Formula: C₂₃H₂₇FN₄O₄

Molecular Weight: 442.48

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	SU14813 is a multi-receptor tyrosine kinase inhibitor with potent antiangiogenesis and antitumor activity (IC ₅₀ s of 50, 2, 4, 15 nM for VEGFR2, VEGFR1, PDGFRβ and KIT).
Targets(IC ₅₀)	c-Kit,PDGFR,VEGFR
In vitro	SU14813, a small molecule identified from the same chemical library used to isolate sunitinib, has broad-spectrum RTK inhibitory activity through binding to and inhibition of VEGFR, PDGFR, KIT, and FLT3. In cellular assays, SU14813 inhibited ligand-dependent and ligand-independent proliferation, migration, and survival of endothelial cells and/or tumor cells expressing these targets. SU14813 inhibited VEGFR-2, PDGFR-beta, and FLT3 phosphorylation in xenograft tumors in a dose- and time-dependent fashion [1].
In vivo	The plasma concentration required for in vivo target inhibition was estimated to be 100 to 200 ng/mL. Used as monotherapy, SU14813 exhibited broad and potent antitumor activity resulting in regression, growth arrest, or substantially reduced growth of various established xenografts derived from human or rat tumor cell lines. Treatment in combination with docetaxel significantly enhanced both the inhibition of primary tumor growth and the survival of the tumor-bearing mice compared with administration of either agent alone[1].

Solubility Information

Solubility	DMSO: 44 mg/mL (99.44 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 (4.52 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	2.260 mL	11.2999 mL	22.5999 mL
5 mM	0.452 mL	2.260 mL	4.520 mL
10 mM	0.226 mL	1.130 mL	2.260 mL
50 mM	0.0452 mL	0.226 mL	0.452 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

Patyna S, et al. SU14813: a novel multiple receptor tyrosine kinase inhibitor with potent antiangiogenic and antitumor activity. Mol Cancer Ther. 2006 Jul;5(7):1774-82.

Dana Hu-Lowe ,et al.The Discovery and Development of SU14813, a Next-Generation Multitargeted Tyrosine Kinase Inhibitor for the Treatment of Human Malignancies.Mol Cancer Ther. 2011 Nov;10(11):2015.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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