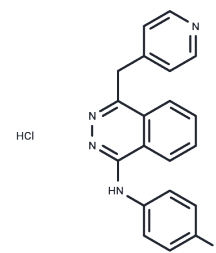


Vatalanib hydrochloride

Chemical Properties

CAS No. :	212141-52-1
Formula:	C ₂₀ H ₁₆ Cl ₂ N ₄
Molecular Weight:	383.27
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Vatalanib hydrochloride (PTK787 hydrochloride) is an orally available and highly potent tyrosine kinase (VEGF) inhibitor that reduces the number and size of A β plaques in the cortex of 5xFAD mice, which may be useful in the study of Alzheimer's disease and cancer.
Targets(IC50)	Apoptosis,VEGFR
In vitro	Vatalanib hydrochloride also inhibited Flk, c-Kit, and PDGFR β with IC ₅₀ s of 270 nM, 730 nM, and 580 nM, respectively.Vatalanib hydrochloride exerted its anti-proliferative effect in HUVECs by inhibiting VEGF-induced thymidine doping (IC ₅₀ of 7.1 nM) and dose-dependently inhibited VEGF-induced endothelial cell survival and migration over a similar dose range, with no significant cytotoxic or antiproliferative effects on cells not expressing VEGF receptors. [1] Vatalanib hydrochloride significantly inhibited the growth of hepatocellular carcinoma cells and enhanced IFN/5-FU-induced apoptosis by elevating the level of Bax protein and reducing the expression of Bcl-xL and Bcl-2 proteins. [2]
In vivo	Vatalanib hydrochloride administered orally once daily (25-100 mg/kg) dose-dependently inhibited angiogenic responses induced by VEGF and PDGF in growth factor implantation models and tumor cell-driven angiogenesis models. Vatalanib hydrochloride also effectively inhibited the growth and metastasis of several human cancers in nude mice at the same dose range, with no significant effect on circulating blood cells or bone marrow leukocytes. [1]

Solubility Information

Solubility	DMSO: 50 mg/mL (130.46 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6091 mL	13.0456 mL	26.0913 mL
5 mM	0.5218 mL	2.6091 mL	5.2183 mL
10 mM	0.2609 mL	1.3046 mL	2.6091 mL
50 mM	0.0522 mL	0.2609 mL	0.5218 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

Wood JM, et al. PTK787/ZK 222584, a novel and potent inhibitor of vascular endothelial growth factor receptor tyrosine kinases, impairs vascular endothelial growth factor-induced responses and tumor growth after oral administration. *Cancer Res.* 2000 Apr 15;60(8):2178-89.

Murakami M, et al. Tyrosine kinase inhibitor PTK/ZK enhances the antitumor effects of interferon- α /5-fluorouracil therapy for hepatocellular carcinoma cells. *Ann Surg Oncol.* 2011 Feb;18(2):589-96.

Wan J, et al. Local recurrence of small cell lung cancer following radiofrequency ablation is induced by HIF-1 α expression in the transition zone. *Oncol Rep.* 2016 Mar;35(3):1297-308.

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