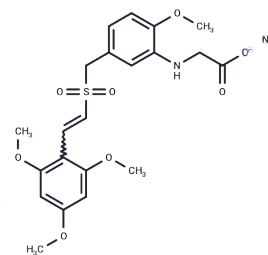


(E/Z)-Rigosertib sodium

Chemical Properties

CAS No. :	1225497-78-8
Formula:	C ₂₁ H ₂₄ NNaO ₈ S
Molecular Weight:	473.47
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	ON-01910 is a non-ATP-competitive PLK1 inhibitor (IC ₅₀ of 9 nM, in a cell-free assay). It shows 30-fold greater selectivity against Plk2 and no activity to Plk3. Rigosertib inhibits PI3K/Akt pathway and activates oxidative stress signals. Rigosertib induces apoptosis in various cancer cells. It is a synthetic benzyl styryl sulfone analogue with potential antineoplastic activity.
Targets (IC ₅₀)	PLK
In vitro	ON01910, a small molecule inhibitor of Plk1 activity, which induces mitotic arrest of tumor cells characterized by spindle abnormalities leading to their apoptosis. This compound was not ATP-competitive, but competed for the substrate binding site of the enzyme [1].
In vivo	In vivo, this compound did not exhibit hematotoxicity, liver damage, or neurotoxicity, and was a potent inhibitor of tumor growth in a variety of xenograft nude mouse models. ON01910 showed strong synergy with several chemotherapeutic agents, often inducing complete regression of tumors [1].

Solubility Information

Solubility	DMSO: 94 mg/mL (198.53 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1121 mL	10.5603 mL	21.1207 mL
5 mM	0.4224 mL	2.1121 mL	4.2241 mL
10 mM	0.2112 mL	1.056 mL	2.1121 mL
50 mM	0.0422 mL	0.2112 mL	0.4224 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

Gumireddy K , Reddy M V R , Cosenza S C , et al. ON01910, a non-ATP-competitive small molecule inhibitor of Plk1, is a potent anticancer agent.[J]. Cancer Cell, 2005, 7(3):275-286.

Dai, Yi-Han, Lai, et al. ON 01910.Na inhibits growth of diffuse large B-cell lymphoma by cytoplasmic sequestration of sumoylated C-MYB/TRAF6 complex[J]. Translational Research the Journal of Laboratory & Clinical Medicine, 2016.

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