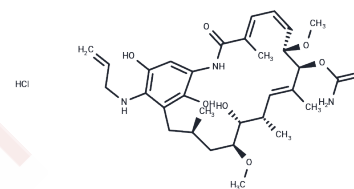


Retaspimycin Hydrochloride

Chemical Properties

CAS No. :	857402-63-2
Formula:	C ₃₁ H ₄₆ ClN ₃ O ₈
Molecular Weight:	624.17
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	Retaspimycin Hydrochloride is a potent and water-soluble Hsp90 inhibitor(Hsp90 and Grp9 with EC50s of 119 nM).
Targets(IC50)	Others,HSP
In vitro	Retaspimycin is an inhibitor of Hsp90. Retaspimycin can abrogate both the unfolded protein response element (UPRE) and ERSE-driven luciferase activity in non-treated U266 and MM.1s cells as well as in Tunicamycin (Tm)-treated cells. Incubation of Retaspimycin potently suppresses both Akt and MAPKs phosphorylation in both sensitive and Trastuzumab-resistant cells. Total levels of Akt decreased in all 4 cell lines (BT474, SKBR-3, HCC1569, and HCC1569) in a dose-dependent manner. However, levels of total MAPKs are not significantly altered with Retaspimycin treatment[2].
In vivo	Tumor regression of Trastuzumab-sensitive BT474 cell-derived xenografts independently induced by Retaspimycin and Trastuzumab. Xenografts derived from BT474R cells continue to grow in the presence of Trastuzumab but are still sensitive to Retaspimycin. When used in combination, Retaspimycin and Trastuzumab add only marginal benefits to Retaspimycin monotherapy. Retaspimycin as a single agent is more efficacious than Trastuzumab in inhibiting tumor growth in HCC1569 xenografts[2].

Solubility Information

Solubility	DMSO: 56 mg/mL (89.72 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 (5.29 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	1.6021 mL	8.0106 mL	16.0213 mL
5 mM	0.3204 mL	1.6021 mL	3.2043 mL
10 mM	0.1602 mL	0.8011 mL	1.6021 mL
50 mM	0.032 mL	0.1602 mL	0.3204 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

- Patterson J, et al. IPI-504, a novel and soluble HSP-90 inhibitor, blocks the unfolded protein response in multiple myeloma cells. *Cancer Chemother Pharmacol.* 2008 May;61(6):923-32.
- Scaltriti M, et al. Antitumor Activity of the Hsp90 Inhibitor IPI-504 in HER2-Positive Trastuzumab-Resistant Breast Cancer. *Mol Cancer Ther.* 2011 May;10(5):817-24.
- Sydor JR, et al. Development of 17-allylamino-17-demethoxygeldanamycin hydroquinone hydrochloride (IPI-504), an anti-cancer agent directed against Hsp90. *Proc Natl Acad Sci U S A.* 2006 Nov 14;103(46):17408-13. Epub 2006 Nov 7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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