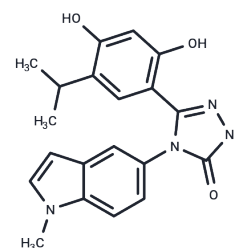


Ganetespib

Chemical Properties

CAS No. :	888216-25-9
Formula:	C ₂₀ H ₂₀ N ₄ O ₃
Molecular Weight:	364.4
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	Ganetespib (STA-9090) is a synthetic small-molecule inhibitor of heat shock protein 90 (Hsp90), exhibiting potential antineoplastic activity.
Targets(IC50)	Apoptosis,HSP,HIF
In vitro	Ganetespib was able to exhibit cytotoxicity at the nanomolar level, inhibiting cell proliferation while inducing apoptosis in a variety of human anti-receptor tyrosine kinase inhibitor and tapepermycin-resistant cancer cell lines. In MG63 cell line (IC50=43 nM), Ganetespib inhibited cell growth. In C2 (IC50=19 nM) and BR canine malignant mast cells (IC50=4 nM), Ganetespib induced apoptosis.
In vivo	Ganetespib was able to exhibit cytotoxicity at the nanomolar level, inhibiting cell proliferation while inducing apoptosis in a variety of human anti-receptor tyrosine kinase inhibitor and tapepermycin-resistant cancer cell lines. In MG63 cell line (IC50=43 nM), Ganetespib inhibited cell growth. In C2 (IC50=19 nM) and BR canine malignant mast cells (IC50=4 nM), Ganetespib induced apoptosis.
Kinase Assay	Exponentially growing cells are processed in lysis buffer (20 mM HEPES, pH 7.4, 1 mM EDTA, 5 mM MgCl ₂ , 100 mM KCl) and incubated with increasing concentrations of 17-AAG or ganetespib for 30 min at 4°C, and incubated with biotin-GM linked to Dynabeads MyOne Streptavidin T1 magnetic beads for 1 h at 4°C. Beads are washed three times in lysis buffer and heated for 5 min at 95°C in SDS-PAGE sample buffer. Samples are resolved on 4-12% Bis-Tris gradient gel and Western blots are performed using an anti-HSP90 antibody.
Cell Research	A total of 1.5 × 10 ³ OSA cells are seeded in 96-well plates in 10% serum-containing complete medium and incubated overnight to determine the 50% inhibitory concentrations. Plates are, harvested at day 5 following 0.001, 0.005, 0.01, 0.05, 0.1, 0.5 and 1 μM Ganetespib, treatment and analyzed. Fluorescence measurements are made using a plate reader with excitation at 485 nm and emission detection at 530 nm. Relative cell number is calculated as a percentage of the control wells: absorbance of sample/absorbance of DMSO treated cells × 100.(Only for Reference)

Solubility Information

A DRUG SCREENING EXPERT

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 83.33 mg/mL (228.68 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 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 (5.49 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	2.7442 mL	13.7212 mL	27.4424 mL
5 mM	0.5488 mL	2.7442 mL	5.4885 mL
10 mM	0.2744 mL	1.3721 mL	2.7442 mL
50 mM	0.0549 mL	0.2744 mL	0.5488 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

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Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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