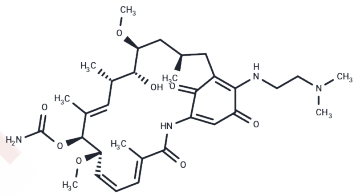
Data Sheet (Cat.No.T20890)

TargetMol

Alvespimycin

Chemical Properties



CAS No. : 467214-20-6

Formula: C32H48N4O8

Molecular Weight: 616.75

Storage: Store at low temperature,Keep away from direct sunlight
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	Alvespimycin (17-DMAG) is a potent Hsp90 inhibitor that binds to Hsp90, exhibiting potential anticancer activity.
Targets(IC50)	HSP
In vitro	After treatment with vehicle control or 1 μM Alvespimycin (17-DMAG) for 24 hours, CLL patient cells showed that Alvespimycin downregulated NF-κB signaling through IKKα and IKKβ[2].
In vivo	Treatment with vehicle (DMSO) or Alvespimycin(17-DMAG)(10 mg/kg) significantly prolonged the survival time of TCL1-SCID model mice[2].

Solubility Information

Solubility	DMSO: 80 mg/mL (129.71 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 (5.35 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6214 mL	8.107 mL	16.214 mL
5 mM	0.3243 mL	1.6214 mL	3.2428 mL
10 mM	0.1621 mL	0.8107 mL	1.6214 mL
50 mM	0.0324 mL	0.1621 mL	0.3243 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

Ge J, et al. Design, synthesis, and biological evaluation of hydroquinone derivatives of 17-amino-17-demethoxygeldanamycin as potent, water-soluble inhibitors of Hsp90. J Med Chem. 2006 Jul 27;49(15):4606-15.
Hertlein E, et al. 17-DMAG targets the nuclear factor-kappaB family of proteins to induce apoptosis in chronic lymphocytic leukemia: clinical implications of HSP90 inhibition. Blood. 2010 Jul 8;116(1):45-53.
Henke A, et al. Reduced Contractility and Motility of Prostatic Cancer-Associated Fibroblasts after Inhibition of Heat Shock Protein 90. Cancers (Basel). 2016 Aug 24;8(9). pii: E77.
Schulze K, Imbeaud S, Letouzé E, Alexandrov LB, Calderaro J, Rebouissou S, Couchy G, Meiller C, Shinde J, Soysouvanh F, Calatayud AL, Pinyol R, Pelletier L, Balabaud C, Laurent A, Blanc JF, Mazzaferro V, Calvo F, Villanueva A, Nault JC, Bioulac-Sage P, Stratton MR, Llovet JM, Zucman-Rossi J. Exome sequencing of hepatocellular carcinomas identifies new mutational signatures and potential therapeutic targets. Nat Genet. 2015 May;47(5):505-511. doi: 10.1038/ng.3252. Epub 2015 Mar 30. PubMed PMID: 25822088; PubMed Central PMCID: PMC4587544.