

Hsp90-Cdc37-IN-4

Chemical Properties

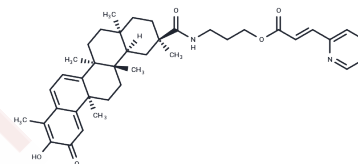
CAS No. : 2758818-41-4

Formula: C40H50N2O5

Molecular Weight: 638.84

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	Hsp90-Cdc37-IN-4 is a novel derivative of triptolide that inhibits the protein-protein interaction (PPI) between Hsp90 and Cdc37. It selectively inhibits casein kinase 2 (CK 2), reducing the phosphorylation of its substrate Cdc37 at the serine 13 site. Additionally, Hsp90-Cdc37-IN-4 induces cell cycle arrest in the G0/G1 phase and triggers apoptosis via the mitochondrial pathway. This compound exhibits significant anti-breast cancer activity.
Targets(IC50)	Apoptosis,HSP,Casein Kinase
In vitro	Hsp90-Cdc37-IN-4 (Compound 11) exhibits antiproliferative effects on five human cancer cell lines, with IC50 values of 0.21 μ M (MBGC-23), 0.27 μ M (HOS), 0.33 μ M (HCT-116), 0.43 μ M (MCF-7), and 0.25 μ M (MDA-MB-231) over a 48-hour period. At concentrations of 0.5-8.0 μ M over 2 hours, it strongly inhibits CK2 α 1. When administered at 0.2-0.8 μ M for 24 hours, Hsp90-Cdc37-IN-4 reduces levels of p-Cdc37 (Serine 13) and p-Akt (Serine 129) in MDA-MB-231 cells, indicating suppression of intracellular CK2 activity and concentration-dependent inhibition of Cdc37 phosphorylation. In addition, at 0.15-0.6 μ M over 24 hours, it induces G0/G1 phase cell cycle arrest in MDA-MB-231 cells in a concentration-dependent manner. Lastly, at 0.2 μ M for 24 hours, it induces apoptosis in MDA-MB-231 cells by inhibiting the Hsp90-Cdc37 cycle.
In vivo	Hsp90-Cdc37-IN-4 (1 mg/kg, administered via intraperitoneal injection once daily for 21 days) demonstrates significant antitumor activity in the MDA-MB-231 xenograft mouse model.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5653 mL	7.8267 mL	15.6534 mL
5 mM	0.3131 mL	1.5653 mL	3.1307 mL
10 mM	0.1565 mL	0.7827 mL	1.5653 mL
50 mM	0.0313 mL	0.1565 mL	0.3131 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.

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