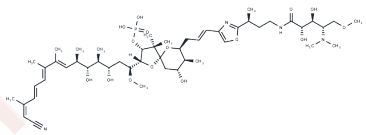
Data Sheet (Cat.No.T14859)

TargetMol

Calyculin A

Chemical Properties



CAS No. : 101932-71-2

Formula: C50H81N4O15P

Molecular Weight: 1009.17

Storage: Store at low temperature,Keep away from direct sunlight
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Calyculin A ((-)-Calyculin A), a toxicant in the Japanese marine sponge CDiscodermia calyxC, is a selective and potent inhibitor of protein phosphatase 1 (PP1) and protein phosphatase 2A (PP2A), inducing hyperactivation of cryopreserved bovine spermatozoa and inhibiting radiation-induced gammaH2AX DNA repair disease in human lymphocytes. gammaH2AX DNA repair foci in human lymphocytes.
Targets(IC50)	Phosphatase
In vitro	**METHODS**: CalycuLin A was used to treat human osteosarcoma MG63 cells at different concentrations (0, 1, 2, 5, 10 nM) for 24 hours. The induction of apoptosis by CalycuLin A was determined using WST-8 assay, nuclear fragmentation, and DNA ladder formation. **RESULTS**: Calyculin A induced apoptosis in human osteosarcoma MG63 cells, characterized by the phosphorylation of p65NF-κB [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9909 mL	4.9546 mL	9.9091 mL
5 mM	0.1982 mL	0.9909 mL	1.9818 mL
10 mM	0.0991 mL	0.4955 mL	0.9909 mL
50 mM	0.0198 mL	0.0991 mL	0.1982 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

Ishihara H, et al. Calyculin A and okadaic acid: inhibitors of protein phosphatase activity. Biochem Biophys Res Commun. 1989 Mar 31;159(3):871-7.

Chen W, Liao Y, Sun P, et al.Construction of an ER stress-related prognostic signature for predicting prognosis and screening the effective anti-tumor drug in osteosarcoma.Journal of Translational Medicine.2024, 22(1): 1-19.

Hiroaki Tanaka,et al. Calyculin A induces apoptosis and stimulates phosphorylation of p65NF-kappaB in human osteoblastic osteosarcoma MG63 cells. Int J Oncol. 2007 Aug;31(2):389-96.

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