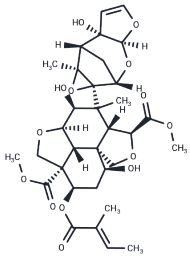
Data Sheet (Cat.No.T14368)

TargetMol

Azadirachtin B

Chemical Properties



CAS No. : 106500-25-8

Formula: C33H42O14

Molecular Weight: 662.68

Storage: Store at low temperature,Keep away from moisture
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	Azadirachtin B (Deacetylazadirachtinol) is a terpenoid compound isolated from Azadirachta seeds, with insecticidal, anticancer, anti-inflammatory, antitumor, and antiviral activities, useful in the study of viral infections. Azadirachtin B also has osteoblast proliferation, differentiation, and mineralization properties.
Targets(IC50)	Parasite,Antifection,Influenza Virus,Phosphatase
In vitro	Azadirachtin B increases expression of RunX-2 2.5 fold at 10 nM concentration, ALP expression 2.8 fold at 10 nM and 100 pM concentration and OCN expression 2.5 folds at 10 nM as compared with control[1]. Azadirachtin B exhibits moderate or potent inhibitory effects (IC50 value of 384 mol ratio/32 pmol TPA) against the Epstein-Barr virus early antigen (EBV-EA) activation induced by tetradecanoylphorbol-13-acetate (TPA)[3]. Azadirachtin B exhibits toxicity to the diamondback moth (Plutella xylostella) with an LD50 of 4.85-1.06 μg/g body weight, in 92 h[2].
In vivo	Azadirachtin B (oral) has antitumor activity against peroxynitrite (ONOO-) -induced skin tumors in mice. [3]

Solubility Information

Solubility	DMSO: 40 mg/mL (60.36 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: 2 mg/mL (3.02 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	1.509 mL	7.5451 mL	15.0902 mL
5 mM	0.3018 mL	1.509 mL	3.018 mL
10 mM	0.1509 mL	0.7545 mL	1.509 mL
50 mM	0.0302 mL	0.1509 mL	0.3018 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

Kushwaha P, et al. Azadirachta indica triterpenoids promote osteoblast differentiation and mineralization in vitro and in vivo. Bioorg Med Chem Lett. 2016 Aug 1;26(15):3719-24.
Kanokmedhakul S, et al. Azadirachtin derivatives from seed kernels of Azadirachta excelsa. J Nat Prod. 2005 Jul;68 (7):1047-50.
Akihisa T, et al. Melanogenesis inhibitory, anti-inflammatory, and chemopreventive effects of limonoids from the seeds of Azadirachta indicia A. Juss. (neem). J Oleo Sci. 2009;58(11):581-94.

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