

28-Deoxonimbolide

Chemical Properties

CAS No. :	126005-94-5
Formula:	C ₂₇ H ₃₂ O ₆
Molecular Weight:	452.55
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	28-Deoxonimbolide is a nimbolide-type limonoid natural product isolated from the seeds of <i>Azadirachta indica</i> . In vitro, it induces apoptosis in tumor cells (e.g., HL-60), with mechanisms involving mitochondrial pathways and potentially the participation of death receptor signaling. It is commonly used in studies of anticancer mechanisms.
In vitro	28-Deoxonimbolide exhibited potent cytotoxic activity against HL60 (leukemia), A549 (lung), AZ521 (stomach), SK-BR-3 (breast), and CRL1579 (melanoma) cells, with IC ₅₀ values of 2.7 μM, 9.3 μM, 2.4 μM, 1.7 μM, 14.2 μM, and 2.7 μM, respectively[1]. 28-Deoxonimbolide induced early apoptosis in HL60 cells. The ratio of early apoptotic cells was increased after 8 h (10.9% vs 6.1% of negative control) and 24 h (18.7% vs 3.5% of negative control), and that of late apoptotic cells (upper right) was increased after 24 h (28.1% vs 2.9% of negative control)[1]. 28-Deoxonimbolide diminished the levels of procaspases-8, -9, and -3, and then increased the levels of cleaved caspases-8, -9, and -3[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2097 mL	11.0485 mL	22.097 mL
5 mM	0.4419 mL	2.2097 mL	4.4194 mL
10 mM	0.221 mL	1.1049 mL	2.2097 mL
50 mM	0.0442 mL	0.221 mL	0.4419 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

Kikuchi T, et al. Cytotoxic and apoptosis-inducing activities of limonoids from the seeds of *Azadirachta indica* (neem). *J Nat Prod.* 2011 Apr 25;74(4):866-70.

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