

Melittin Acetate

Chemical Properties

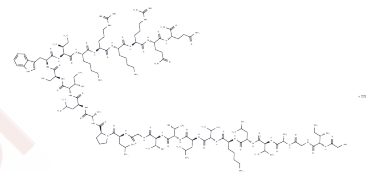
CAS No. :

Formula: C133H233N39O33

Molecular Weight: 2906.51

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	Melittin Acetate (Forapin Acetate) is a PLA2 activator. Melittin Acetate stimulates the activity of the low molecular weight PLA2, while it does not increase the activity of the high molecular weight PLA2.
Targets(IC50)	Phospholipase
In vitro	Melittin Acetate is an immunologically related PLA2 stimulating peptide from bee venom. Melittin Acetate increases the activity of the high molecular weight enzyme[1]. Melittin Acetate is a cytotoxic peptide from bee venom. Melittin Acetate shows toxicity against both A2780CR and A2780 cells, with IC50 values of 4.5 and 6.8 µg/mL, respectively. Melittin Acetate shows natural anti-bacterial, anti-viral, and anti-inflammatory properties. It has also been shown to have diverse anticancer effects in several different cancer cell lines including those of gastric, breast, ovarian, liver, prostate, cervical, and lung origins. The mechanisms by which Melittin Acetate, an amphipathic haemolytic peptide, exerts its potential anticancer effects include inhibition of cell proliferation, induction of apoptosis, and direct necrosis. Melittin Acetate can also prevent EGF-induced cell invasion through its inhibition of the PI3K/Akt/mTOR signaling pathway, but this is primarily related to breast cancer cells[2].

Solubility Information

Solubility	H2O: 100 mg/mL (34.41 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3441 mL	1.7203 mL	3.4406 mL
5 mM	0.0688 mL	0.3441 mL	0.6881 mL
10 mM	0.0344 mL	0.172 mL	0.3441 mL
50 mM	0.0069 mL	0.0344 mL	0.0688 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

Steiner MR, et al. Responses of purified phospholipases A2 to phospholipase A2 activating protein (PLAP) and Melittin. *Biochim Biophys Acta*. 1993 Feb 10;1166(1):124-30.

Alonezi S, et al. Metabolomic Profiling of the Effects of Melittin on Cisplatin Resistant and Cisplatin Sensitive Ovarian Cancer Cells Using Mass Spectrometry and Biolog Microarray Technology. *Metabolites*. 2016 Oct 13;6(4). pii: E35.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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