

Melittin TFA(20449-79-0(free base))

Chemical Properties

CAS No. :

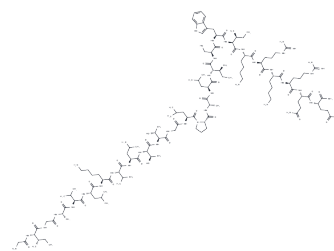
Formula: C133H230F3N39O33

Molecular Weight: 2960.54

Appearance: no data available

Storage: keep away from moisture

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Melittin TFA is a small protein containing 26 amino acid residues, is the principal toxic component of bee venom. Melittin is a PLA2 activator, stimulates the activity of the low molecular weight PLA2, while it does not the increase activity of the high molecular weight PLA2.
Targets(IC50)	Phospholipase
In vitro	Melittin, an immunologically related PLA2 stimulating peptide from bee venom, increases the activity of the high molecular weight enzyme[1]. Melittin is a cytotoxic peptide from bee venom. Melittin exhibits toxicity against both A2780CR and A2780 cells, with IC50 values of 4.5 and 6.8 µg/mL, respectively. Melittin has 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, an amphipathic haemolytic peptide, exerts its potential anticancer effects include inhibition of cell proliferation, induction of apoptosis, and direct necrosis. Melittin 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	DMSO: 5 mM, H2O: 20 mM, (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3378 mL	1.6889 mL	3.3778 mL
5 mM	0.0676 mL	0.3378 mL	0.6756 mL
10 mM	0.0338 mL	0.1689 mL	0.3378 mL
50 mM	0.0068 mL	0.0338 mL	0.0676 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.

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.

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:36 Washington Street,Wellesley Hills,MA 02481