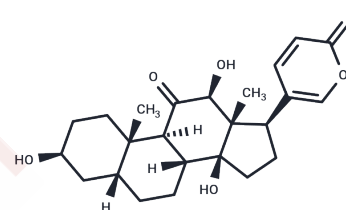


Bufarenogin

Chemical Properties

CAS No. :	17008-65-0
Formula:	C ₂₄ H ₃₂ O ₆
Molecular Weight:	416.51
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	Bufarenogin (3beta,12beta,14-Trihydroxy-11-oxo-5beta-bufa-20,22-dienolide) is a bufadienolide isolated from parotoid gland secretions of the Cuban endemic toad <i>Peltophyryne fustiger</i> . Bufarenogin shows anti-tumor activity.
Targets(IC50)	Apoptosis,ERK,Bcl-2 Family,MEK,PI3K
In vitro	Bufarenogin caused cell death via apoptosis. Bufarenogin induced B-cell lymphoma 2-associated X protein (Bax)-dependent intrinsic apoptosis, as demonstrated by mitochondrial translocation of Bax and cytoplasm release of HCT116 wild-type cells and cytochrome C. Bufarenogin induced intrinsic apoptosis through the cooperation of Bax and adenine-nucleotide translocator and inhibited the metastasis and growth of orthotopical CRC cells[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (120.05 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 (4.8 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4009 mL	12.0045 mL	24.009 mL
5 mM	0.4802 mL	2.4009 mL	4.8018 mL
10 mM	0.2401 mL	1.2005 mL	2.4009 mL
50 mM	0.048 mL	0.2401 mL	0.4802 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

Perera Córdova WH, et al. Bufadienolides from parotoid gland secretions of Cuban toad *Peltophryne fustiger* (Bufonidae): Inhibition of human kidney Na(+)/K(+)-ATPase activity. *Toxicon*. 2016 Feb;110:27-34.

Qinrui Han, et al. Bufarenogin induces intrinsic apoptosis via Bax and ANT cooperation. *Pharmacol Res Perspect*. 2021 Feb;9(1):e00694.

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