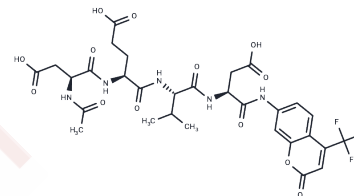


AC-DEVD-AFC

Chemical Properties

CAS No. :	201608-14-2
Formula:	C30H34F3N5O13
Molecular Weight:	729.61
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	AC-DEVD-AFC, a fluorogenic substrate, undergoes cleavage by caspase-3, producing a blue fluorescent compound upon excitation at 400 nm, which can be quantified at an emission maximum of 505 nm.
Targets(IC50)	Others
In vitro	Caspase activation was measured using the fluorogenic compound N-acetyl-aspartyl-glutamyl-aspartyl-7-amino-4-trifluoromethyl coumarin (Ac-DEVD-AFC). We show that this substrate rapidly enters cells where it is efficiently cleaved at the aspartate residue by specific caspases, yielding the fluorescent compound 7-amino-4-trifluoromethyl coumarin (AFC). Following cell disruption, released AFC was separated on HPLC and detected by fluorescence. The appearance of AFC in cells was blocked by the pancaspase inhibitor benzyloxycarbonyl-val-ala-aspartyl-fluoromethylketone, thus establishing that intracellular caspases were responsible for the cleavage. Caspase activity was first noted after about 2 h of incubation with doxorubicin or dactinomycin, the production of AFC being linear with time afterward[1].

Solubility Information

Solubility	DMSO: 132.5 mg/mL (181.6 mM), Sonication is recommended. H2O: insoluble, (< 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 (2.74 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	1.3706 mL	6.853 mL	13.706 mL
5 mM	0.2741 mL	1.3706 mL	2.7412 mL
10 mM	0.1371 mL	0.6853 mL	1.3706 mL
50 mM	0.0274 mL	0.1371 mL	0.2741 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

Tao Z , Goodisman J , Penefsky H S , et al. Caspase activation by anticancer drugs: the caspase storm.[J].
Molecular Pharmaceutics, 2007, 4(4):583.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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