

Ac-DEVD-AMC

Chemical Properties

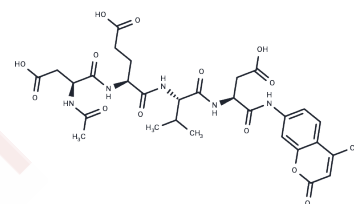
CAS No. : 169332-61-0

Formula: C₃₀H₃₇N₅O₁₃

Molecular Weight: 675.64

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	Ac-DEVD-AMC (AC-ASP-MET-GLN-ASP-7-AMINO-4-METHYLCOUMARIN) is the substrate of Caspase-3 .
Targets(IC50)	Caspase
In vitro	The AMC moiety is highest at 2 h with an area of 5.6±1.8, the AMC peak area for Ac-DEVD-AMC incubated without a lung specimen (substrate alone) for 6 h is relatively small [1]. Ac-DEVD-AMC can be used to monitor intracellular caspase-3 activity[2].
Cell Research	Lung fragments (about 20 mg each) are collected from rats and mice. The samples are incubated at 37°C in 50 mL KH buffer or MEM (continuously gassed with 95% O ₂ : 5% CO ₂) for up to 6 h. At specific time points, samples are incubated in oxygenated KH buffer or MEM with 32 μM zVAD-fmk or 15 μL DMSO for 20 min (f/v=1.0 mL). Ac-DEVD-AMC (37 μM) is then added and the incubation continues for an additional 20 min. At the end of incubation, the tissue is disrupted by vigorous homogenization for 2 min, sonication for 3 min, and 10 passages through a 27-G needle. This disruption procedure quenches the Ac-DEVD-AMC cleavage reaction due to dilution. The supernatants are collected by centrifugation (~6,300g for 90 min) through a microcentrifuge filter, separated on HPLC, and analyzed for the fluorogenic AMC moiety [2].

Solubility Information

Solubility	DMSO: ≤ 10 mg/mL (14.80 mM), Sonication is recommended. H ₂ O: < 0.1 mg/mL (insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4801 mL	7.4004 mL	14.8008 mL
5 mM	0.296 mL	1.4801 mL	2.9602 mL
10 mM	0.148 mL	0.740 mL	1.4801 mL
50 mM	0.0296 mL	0.148 mL	0.296 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

Ahmed R Alsuwaidi, et al. Lung tissue bioenergetics and caspase activity in rodents. BMC Res Notes. 2013; 6: 12.
Ahmed R Alsuwaidi, et al. Bioenergetics of murine lungs infected with respiratory syncytial virus. Virol J. 2013; 10: 22.

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