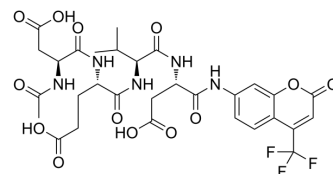


## Ac-DEVD-AFC

**Cat. No.:** HY-P1005  
**CAS No.:** 201608-14-2  
**Molecular Formula:** C<sub>30</sub>H<sub>34</sub>F<sub>3</sub>N<sub>5</sub>O<sub>13</sub>  
**Molecular Weight:** 730  
**Sequence:** N-Acetyl-Asp-Glu-Val-Asp-7-amido-4-trifluoroMethylcoumarin  
**Sequence Shortening:** Ac-DEVD-7-amido-4-trifluoroMethylcoumarin  
**Target:** Fluorescent Dye  
**Pathway:** Others  
**Storage:** Sealed storage, away from moisture and light



Powder -80°C 2 years  
 -20°C 1 year  
 \* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 50 mg/mL (68.49 mM)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.3699 mL	6.8493 mL	13.6986 mL
	5 mM		0.2740 mL	1.3699 mL	2.7397 mL
	10 mM		0.1370 mL	0.6849 mL	1.3699 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (3.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (3.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (3.42 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Ac-DEVD-AFC is a fluorogenic substrate ( $\lambda_{\text{ex}}$ =400 nm,  $\lambda_{\text{em}}$ =530 nm).

## In Vitro

After incubation with Ac-DEVD-AFC for 1 hour, significant increase of caspase-3 activity is observed at 4 hour compare with control. There are no significant increases of caspase-3 activity in Photofrin and LPLI group. The cleavage of Ac-DEVD-AFC in response to caspase-3 activation is remarkably inhibited by shRNA-BimL transfection<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## PROTOCOL

### Cell Assay <sup>[1]</sup>

For the detection of caspase-3 activity, PBS washes cell pellets (derive from either the medium or the adherent cells) which are suspended in extract buffer [25 mM HEPES (pH7.4), 0.1% TritonX-100, 10% glycerol, 5 mM DTT, 1mM phenylmethylsulfonyl fluoride, 10 mg/mL pepstatin, and 10 mg/mL Leupeptin] and vortexed vigorously. 20µl of extract (corresponding to 10% of the sample) are incubated with the caspase-3 fluorogenic substrates Ac-DEVD-AFC at 100 µM final concentration at room temperature, and caspase-3 activity is measured continuously by monitoring the release of fluorogenic AFC at 37°C<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Cell Rep. 2023 Apr 18;42(5):112414.
- ACS Pharmacol Transl Sci. 2021 Jun 9.
- J Ethnopharmacol. 2020 Nov 15;262:113213.

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## REFERENCES

[1]. Wang X, et al. Involvement of Bim in Photofrin-mediated photodynamically induced apoptosis. Cell Physiol Biochem. 2015;35(4):1527-36.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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