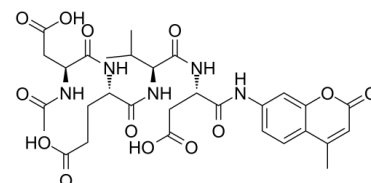


## Data Sheet

Product Name:	Ac-DEVD-AMC
Cat. No.:	CS-7679
CAS No.:	169332-61-0
Molecular Formula:	C30H37N5O13
Molecular Weight:	675.64
Target:	Others
Pathway:	Others
Solubility:	H2O : < 0.1 mg/mL (insoluble)



### BIOLOGICAL ACTIVITY:

Ac-DEVD-AMC is the **Caspase-3 substrate**. Sequence: N-Acetyl-Asp-Glu-Val-Asp-7-amido-4-Methylcoumarin. **In Vitro:** Ac-DEVD-AMC is the caspase-3 substrate and could be used to monitor intracellular caspase-3 activity<sup>[1]</sup>. The AMC moiety is highest at 2 h (area = 5.6±1.8), the AMC peak area for Ac-DEVD-AMC incubated without lung specimen (substrate alone) for 6 h is relatively small<sup>[2]</sup>.

### PROTOCOL (Extracted from published papers and Only for reference)

**Cell Assay:** Ac-DEVD-AMC solution (7.4 mM) is made by dissolving 5.0 mg in 1.0 mL dimethyl sulfoxide and stored at -20°C.<sup>[2]</sup> 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<sub>2</sub> : 5% CO<sub>2</sub>) 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 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 microcentrifuge filter, separated on HPLC, and analyzed for the fluorogenic AMC moiety<sup>[2]</sup>.

### References:

[1]. Ahmed R Alsuwaidi, et al. Bioenergetics of murine lungs infected with respiratory syncytial virus. Virol J. 2013; 10: 22.

[2]. Ahmed R Alsuwaidi, et al. Lung tissue bioenergetics and caspase activity in rodents. BMC Res Notes. 2013; 6: 12.

### CAIndexNames:

L-α-Asparagine, N-acetyl-L-α-aspartyl-L-α-glutamyl-L-valyl-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-

### SMILES:

CC(C1=CC=C(NC([C@H](CC(O)=O)NC([C@H](C(C)C)NC([C@H](CCC(O)=O)NC([C@@H](NC(C)=O)CC(O)=O)=O)=O)=O)C=C1O2)=CC2=O

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

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