

# PRODUCT INFORMATION



## Ac-DEVD-AFC

Item No. 14459

CAS Registry No.: 201608-14-2

Formal Name: N-acetyl-L- $\alpha$ -aspartyl-L- $\alpha$ -glutamyl-L-valyl-N-[2-oxo-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]-L- $\alpha$ -asparagine

Synonyms: N-Acetyl-Asp-Glu-Val-Asp-7-amino-4-Trifluoromethylcoumarin, Caspase-3 Substrate (Fluorogenic)

MF:  $C_{30}H_{34}F_3N_5O_{13}$

FW: 729.6

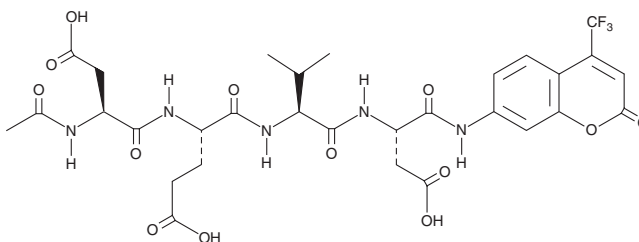
Purity:  $\geq 98\%$

Ex./Em. Max: 400/505 nm

Supplied as: A crystalline solid

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ac-DEVD-AFC is supplied as a crystalline solid. A stock solution may be made by dissolving the Ac-DEVD-AFC in water. The solubility of Ac-DEVD-AFC in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day

### Description

During apoptosis, activated caspase-3 cleaves several substrates, including poly(ADP-ribose) polymerase, which it specifically targets at the amino sequence DEVD.<sup>1</sup> Ac-DEVD-AFC is a fluorogenic substrate for activated caspase-3 ( $K_m = 9.7 \mu M$ ), as well as related caspases.<sup>2-4</sup> Caspase activity can be quantified by fluorescent detection of free AFC (also known as 7-amino-4-trifluoromethylcoumarin), which is excited at 400 nm and emits at 505 nm.

### References

1. Lazebnik, Y.A., Kaufmann, S.H., Desnoyers, S., *et al.* Cleavage of poly(ADP-ribose) polymerase by a proteinase with properties like ICE. *Nature* **371**, 346-347 (1994).
2. Xiang, J., Chao, D.T., and Korsmeyer, S.J. BAX-induced cell death may not require interleukin 1 $\beta$ -converting enzyme-like proteases. *Proc. Natl. Acad. Sci. USA* **93(25)**, 14559-14563 (1996).
3. Chandler, J.M., Cohen, G.M., and MacFarlane, M. Different subcellular distribution of caspase-3 and caspase-7 following Fas-induced apoptosis in mouse liver. *J. Biol. Chem.* **273(18)**, 10815-10818 (1998).
4. Marcelli, M., Cunningham, G.R., Haidacher, S.J., *et al.* Caspase-7 is activated during lovastatin-induced apoptosis of the prostate cancer cell line LNCaP. *Cancer Res.* **58(1)**, 76-83 (1998).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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