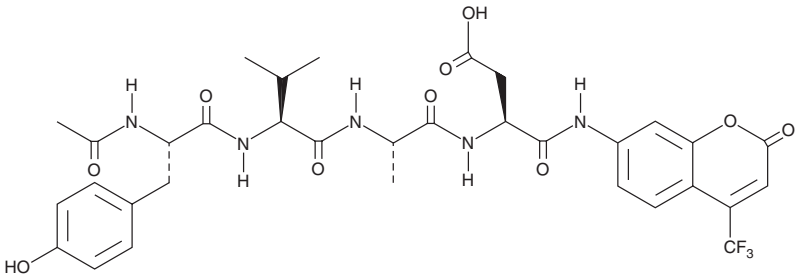
PRODUCT INFORMATION

Ac-YVAD-AFC

Item No. 17591

CAS Registry No.:	219137-85-6
Formal Name:	N-acetyl-L-tyrosyl-L-valyl-L-alanyl-N-[2-oxo-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]-L-α-asparagine
Synonyms:	Caspase-1 Substrate VI (Fluorogenic), Ac-Tyr-Val-Ala-Asp-7-amino-4-Trifluoromethlcoumarin
MF:	$C_{33}H_{36}F_3N_5O_{10}$
FW:	719.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 339 nm
Ex./Em. Max:	400/505 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Ac-YVAD-AFC is supplied as a crystalline solid. A stock solution may be made by dissolving the Ac-YVAD-AFC in the solvent of choice, which should be purged with an inert gas. Ac-YVAD-AFC is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Ac-YVAD-AFC in these solvents is approximately 10 and 1 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Ac-YVAD-AFC can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Ac-YVAD-AFC in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ac-YVAD-AFC is a substrate whose amino acids YVAD have been shown to be a preferred cleavage site for caspase-1 and -4.[1,2] 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. Talanian, R.V., Quinlan, C., Trautz, S., *et al.* Substrate specificities of caspase family proteases. *J. Biol. Chem.* **272(15)**, 9677-9682 (1997).
2. 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).

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