Product Data Sheet

Product Name: Ac-VDVAD-AFC
Cat. No.: GC13400

Chemical Properties

Cas. No.	210344-94-8		
Chemical Name	N-acetyl-L-valyl-L-α-aspartyl-L-valyl-L-alanyl-N-[2-oxo-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]-L-α-asparagine		
SMILES	O=C(O)CC(NC(C(NC(C(NC(C(NC(C(NC(C)=O)C(C)C)=O)CC(O)=O)=O)C(C)C)=O)C)=O)C(NC1=CC(O2)=C(C=C1)C(C(F)(F)F)=CC2=O)=O		
Formula	$C_{33}H_{41}F_3N_6O_{12}$	M.Wt	770.71
Solubility	DMF: 10 mg/ml,DMSO: 10 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Ac-VDVAD-AFC		

Background

Ac-VDVAD-AFC is a fluorogenic substrate whose amino acids VDVAD have been shown to be a preferred cleavage site for caspase-2.[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. Increases in Ac-VDVAD-AFC cleavage have been reported to correlate with nitric oxide-induced activation of caspase-2 and subsequent apoptosis in human neuroblastoma lines.[1]

Product Description References

1. Moriya, R., Uehara, T., and Nomura, Y. Mechanism of nitric oxide-induced apoptosis in human neuroblastoma SH-SY5Y cells. FEBS Lett. 484(3), 253-260 (2000).

2. Talanian, R.V., Quinlan, C., Trautz, S., et al. Substrate specificities of caspase family proteases. The Journal of Biological Chemisty 272(15), 9677-9682 (1997).

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