Bz-FVR-AMC

Cat. No.: HY-D1634

CAS No.: 88899-22-3

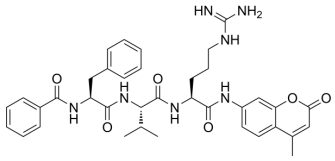
Molecular Formula: $C_{37}H_{43}N_7O_6$

Molecular Weight: 681.78

Target: Cathepsin

Pathway: Metabolic Enzyme/Protease

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (183.34 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4667 mL	7.3337 mL	14.6675 mL
	5 mM	0.2933 mL	1.4667 mL	2.9335 mL
	10 mM	0.1467 mL	0.7334 mL	1.4667 mL

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

BIOLOGICAL ACTIVITY

Description

Bz-FVR-AMC is a fluorogenic substrate for procathepsin with a k_{cat}/K_m value of 1070 $mM^{-1}s^{-1}$. The high concentration of BZ-FVR-AMC inhibits the substrate[1][2].

In Vitro

Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).
Processing and activation of procathepsin S[2]:
1. Autocatalytic activation of procathepsin S was studied by incubation (final concentration 1-5 μM) at 37 ⊠ in 0.5 mL of the appropriate buffer containing 2.5 mM dithiothreitol.
2. Aliquots of 10 μl were taken from the reaction mixture at the times indicated and mixed with 2.5 ml of substrate solution (10 μM Bz-FVR-AMC in 0.1 M phosphate buffer, pH 6.5, containing 1 mM EDTA (HY-Y0682) and 0.1% (w/v) polyethylene glycol 6000).
3. Fluorescence of the released AMC was then monitored continuously for 1 min in a pectrofluorimeter at excitation and emission wavelengths of 370 and 460 nm.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Vasiljeva O, et al. Recombinant human procathepsin S is capable of autocatalytic processing at neutral pH in the presence of glycosaminoglycans. FEBS Lett. 2005 Feb 14;579(5):1285-90.

[2]. Vasiljeva O, et al. Recombinant human cathepsin H lacking the mini chain is an endopeptidase. Biochemistry. 2003 Nov 25;42(46):13522-8.

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

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