Product Data Sheet

Product Name: Acetyl-pepstatin ammonium
Cat. No.: GC81868

Chemical Properties

Cas. No.			
Formula	$C_{31}H_{60}N_6O_9$	M.Wt	660.84
Solubility	DMSO: 20 mg/mL (30.26 mM; Need ultrasonic)	Storage	Sealed storage, away from moisture
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C 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			

Background

Acetyl-pepstatin ammonium is an aspartic protease (PRs) inhibitor that targets HIV-1 protease and XMRV protease with K i values of 13 nM and 712 nM, respectively. Acetyl-pepstatin ammonium inhibits XMRV protease by blocking cleavage through mixed-mode binding. Acetyl-pepstatin ammonium can be used in research related to HIV-1 and XMRV infection [1].

In Vitro, Acetyl-pepstatin (1 h) ammonium inhibits recombinant XMRV PR in an HPLC-based protease assay with an apparent Ki of 712 nM, and inhibits recombinant HIV-1 PR with an apparent

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Ki of 13 nM[1]. Acetyl-pepstatin (3.0 μM; 1 h) ammonium produces 50% inhibition of XMRV PR-mediated cleavage of recombinant MLV Gag fragments in SDS-PAGE experiments[1]. Acetyl-pepstatin ammonium binds XMRV PR in a mixed mode, involving two half-occupied head-to-head molecules and one half-occupied standard-mode molecule, as determined by the 2.0 Å crystal structure PDB 4EXH[1].

References:

[1]. Matúz K, et al. Inhibition of XMRV and HIV-1 proteases by pepstatin A and acetyl-pepstatin. The FEBS journal. 2012 Sep;279(17):3276-86.

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

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