# Catalog Number: 195368 Pepstatin A

# Structure:

# Molecular Formula: C<sub>34</sub>H<sub>63</sub>N<sub>5</sub>O<sub>9</sub>

## Molecular Weight: 685.91

#### CAS #: 26305-03-3

**Synonyms:** Isovaleryl-L-valyl-L-valyl-[(3S, 4S)-4-amino-3-hydroxy-6- methylheptanoyl]-L- alanyl [3S,4S)-4-amino-3-hydroxy-6- methylheptanoic acid]; [1S-[1R\*,2R\*,4[R\*[R\*(R\*)]]]]-N- (3-methyl-1-oxobutyl)-L-valyl-N-[4-[[2-[[1-(2-carboxy-1-hydroxyethyl)-3- methylbutyl] amino]-1-methyl-2-oxoethyl]amino]-2-hydroxy-1-(2-methylpropyl)-4-oxobutyl]-L-valinamide; N-isovaleryl-L-valyl-L-valyl-3- hydroxy-6-methyl- $\gamma$ -aminoheptanoyl-L- alanyl-3-hydroxy-6-methyl- $\gamma$ -aminoheptanoic acid

# Physical Description: White to off white powder

Sequence: Isoval-Val-Val-Sta-Ala-Sta; where Sta = statine = (SS, 4S)- 4-amino-3- hydroxy-6- methylheptanoic acid.

#### Source: Synthetic

#### Purity: >98.5%

**Solubility:** Stock solutions can be prepared in methanol or DMSO (25 mg/ml - clear, faint yellow solution) (Stock solutions are usually prepared to approximately 1 mM). Soluble in ethanol (10 mg/ml with heat - colorless to hazy solution. To remove haziness, add up to 50 ul of glacial acetic acid per ml of ethanol.) Insoluble in water and 1 M NaOH. Stock solutions should be aliquoted and stored at - 20°C for up to 3 to 4 months. Working solutions (approximately 1 uM) are stable for about 1 day; practically insoluble in benzene, chloroform, ether, water

**Description:** A reversible inhibitor of aspartic proteases. Inhibitor for pepsin, renin, cathepsin D, cathepsin G, and other acid proteases. It does not inhibit thiol proteases, neutral proteases or serine proteases. Pepstatin forms a 1:1 complex with acid proteases (carboxyl proteases). Effective concentration is approximately 1 uM (0.5 to 1.0 ug/mL).

Click Here for a list of other protease inhibitors offered by MP Biomedicals and general protease inhibitor information.

#### **References:**

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- 13. Szewczuk, Z., et al., Int. J. Peptide Res., v. 40, 233 (1992).