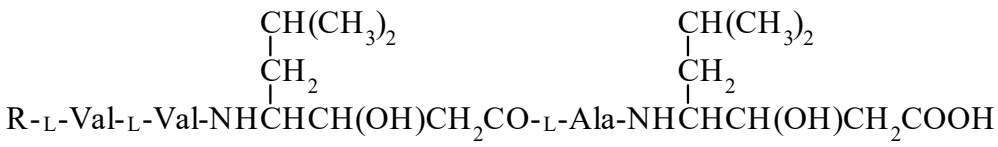
>>**Entry Name: Pepstatins**



Pepstatin A, R = $COCH_2CH(CH_3)_2$
AC, R = $COCH_3$
BU, R = $COCH_2CH_2CH_3$
PR, R = $COCH_2CH_3$

>>**Variant: Pepstatin A,** 9CI
Synonym(s): Pepstatin, INN, USAN**.** Ahpatinin C. Pepsin inhibitor S 735A. Procidin S 735A

CAS Registry Number: 26305-03-3

Molecular Formula: $C_{34}H_{63}N_5O_9$
Molecular Weight: 685.9
Accurate Mass: 685.46258
Percentage Composition: C 59.54%; H 9.26%; N 10.21%; O 20.99%
Biological Source: From *Streptomyces testaceus, Streptomyces procidinanus* and *Streptomyces* sp. WK 142
Use/Importance: Pepsin inhibitor. Inhibits HIV-1 protease activity. Antineoplastic
Development Status: Never marketed
Melting Point: Mp 228-229°
UV: [neutral] λ_{max} 0 (end) (ε) (MeOH) (Derep)
Other Data: WK 142 also prod. Ahpatinin D, which has same gross struct.
Hazard & Toxicity: LD_{50} (rat, ipr) 875 mg/kg. LD_{50} (rat, orl) >2000 mg/kg

Aldrich: 36032-5
Fluka: 77170
Sigma: P2442

>>**Derivative:** Me ester
Synonym(s): Procidin S 735M. Pepsin inhibitor S 735M

CAS Registry Number: 29169-91-3

Molecular Formula: $C_{35}H_{65}N_5O_9$
Molecular Weight: 699.927
Accurate Mass: 699.47823
Percentage Composition: C 60.06%; H 9.36%; N 10.01%; O 20.57%
Biological Source: From *Streptomyces procidinanus*

>>**Derivative:** Hydroxy
Synonym(s): Hydroxypepstatin A. 4-L-Serinepepstatin A

CAS Registry Number: 52329-53-0

Molecular Formula: $C_{34}H_{63}N_5O_{10}$
Molecular Weight: 701.899
Accurate Mass: 701.457495
Percentage Composition: C 58.18%; H 9.05%; N 9.98%; O 22.79%
Biological Source: From *Streptomyces testaceus*
Physical Description: Cryst.
Melting Point: Mp 232.5-233.5°
Solubility: BERDY SOL: Sol. MeOH, butanol; poorly sol. cyclohexane
UV: [neutral] λ_{max} (MeOH) (Berdy)
Other Data: May contain fatty acid homologues