Pepstatin A

货号：P1678

储存条件：粉末-20°C 可保存 3 年；液体-80°C 可保存 12 月。

产品描述

Aspartic proteinases are a class of enzymes commonly expressed in osteoclasts that contribute to bone resorption in endosome/lysosome system. Pepstatin A is a chemotactic pentapeptide that inhibits different kinds of aspartic proteinases, such as pepsin, cathepsins D and E. In a co-culture system, Pepstatin A at 15 - 120 μM suppressed the formation of TRAP-positive multinuclear cells in a dose-dependent manner. Pepstatin A at the same concentration range also exhibited a similar inhibitory effect on RANKL/M-CSF-induced osteoclastogenesis in bone marrow culture. In bone marrow cells separated from stromal cells on a Sephadex G-10 column, pepstatin A at 15 - 120 μM dose-dependently suppressed RANKL-induced osteoclastogenesis. In osteoclasts generated from bone marrow cells and stimulated with RANKL and M-CSF, pepstatin A at 120 μM strongly inhibited the early stage of osteoclast formation. Pepstatin A at 15 μM sufficiently inhibited the aspartic proteinase activity in bone marrow cells and the complete inhibition was seen at the concentration of 90 μM. Additionally, pretreatment of pepstatin A for 3 hours inhibited RANKL-induced ERK activation and NFATc1 expression in osteoclasts. Pepstatin A stimulated human neutrophil degranulation and superoxide production with EC50 values of 0.75 μM and 1.5 μM respectively.

储存液制备	质量	1 mg	5 mg	10 mg
	1 mM	1.4580 mL	7.2898 mL	14.5796 mL
	5 mM	0.2916 mL	1.4580 mL	2.9159 mL
	10 mM	0.1458 mL	0.7290 mL	1.4580 mL

产品性质

CAS 号	26305-03-3	
分子式	$C_{34}H_{63}N_5O_9$	
分子量	685.89	
溶解度	DMSO	50.0 mg/mL (72.9 mM)
	Water	insoluble