Description: Pepstatin is a specific aspartic proteases inhibitor produced by actinomycetes, and inhibits the aspartic proteases cathepsin D, pepsin and renin.

Storage: 2 years -80°C in solvent; 3 years -20°C powder;

<table>
<thead>
<tr>
<th>Solubility</th>
<th>DMSO</th>
<th>25 mg/mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>1 mg/mL</td>
<td>(1.46 mM)</td>
</tr>
<tr>
<td>Water</td>
<td>Insoluble</td>
<td></td>
</tr>
</tbody>
</table>

(< 1 mg/mL refers to the product slightly soluble or insoluble)

Receptor (IC50) aspartic protease

In vitro Activity
Pepstatin is a specific acid protease inhibitor with IC50s of 4.5 nM, 6.2 nM, 150 nM, 290 nM, 520 nM and 260 nM for hemoglobin-pepsin, hemoglobin-proctase, casein-pepsin, casein-proctase, casein-acid protease, and hemoglobin-acid protease, respectively [1]. Pepstatin inhibits the recombinant HIV protease (IC50: 250 μM). Pepstatin shows no effect on cellular protein synthesis and probably does not exert severe cell toxicity [2].

In vivo Activity
Pepstatin has very low toxicity, with LD50s of 1090 mg/kg, 875 mg/kg, 820 mg/kg and 450 mg/kg for mice, rats, rabbits, and dogs by i.p. route, and > 2000 mg/kg for all species by the oral route. Pepstatin (0.5-50 mg/kg, p.o.) suppresses stomach ulceration of the pylorus in ligated Shay rats [1]. The bacterial motility in the pepstatin-treated gastric juice was measured at the pH values of 2.0, 3.0, 4.0, 4.5, and 5.0 (n = 5 for each pH). The bacteria remained motile significantly longer than in the in vivo experiments without pepstatin [4].

Reference

FOR RESEARCH PURPOSES ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

Information for product storage and handling is indicated on the product datasheet. Targetmol products are stable for long term under the recommended storage conditions. Our products may be shipped under different conditions as many of them are stable in the short-term at higher or even room temperatures. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, please follow the storage recommendations on the product data sheet.