

Specification

Leupeptin Hemisulfate

A2183

Physical Description:	Solid
Product Code:	A2183
Product Name:	Leupeptin Hemisulfate
Specifications:	Assay (HPLC): min. 96.5 % Solubility (1 %; H ₂ O): clear
WGK:	1
Storage:	-20°C
Molecular Formula:	C ₂₀ H ₃₈ N ₆ O ₄ · ½H ₂ SO ₄
M:	475.60 g/mol
CAS:	103476-89-7
CS:	29419000
Comment	<p>Leupeptin is a peptide antibiotic, isolated from several <i>Streptomyces</i> species. It is a reversible inhibitor of serine and cysteine proteases (e. g. plasmin, trypsin, papain, cathepsin B (1), thrombin (2), calcium-dependent protease calpain (2)). The halfmaximal inhibitory concentration (ID₅₀) depends on the protease and ranges from 0.5 to 10 µg/ml. The working concentration is 10 - 100 µM (corresponds to 5 - 50 µg/ml), but as a starting concentration 2 µM (1 µg/ml) might be sufficient. Stability: Leupeptin is readily water-soluble. Aqueous stock solutions are set up with a concentration of 1 mg/ml. Leupeptin is stable in solutions at +4°C for approx. one week and at -20°C up to 6 months.</p>
Bibliography	<p>(1)Umezawa, H. (1976) <i>Methods Enzymol.</i> 45 (Part B), 678-695 Structures and activities of protease inhibitors of microbial origin. (2)Brass, L.F. & Shattil, S.J. (1988) <i>J. Biol. Chem.</i> 263, 5210-5216 Inhibition of Thrombin-induced platelet activation by Leupeptin.</p>

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