

Pap12-6 TFA

Chemical Properties

CAS No. :

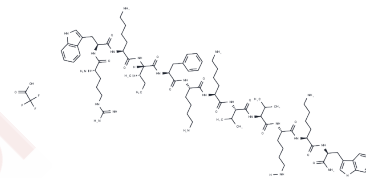
Formula: C83H133N23O12.XCF3COOH

Molecular Weight: 1645.10

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Pap12-6, an antibacterial peptide originating from the first twelve N-terminal amino acids of papiliocin found in <i>P. xuthus</i> larvae, exhibits activity against a range of eight Gram-negative bacteria (e.g., <i>E. coli</i> , <i>P. aeruginosa</i> , <i>S. syphimurium</i> with MIC50s=4-8 μ M) and Gram-positive bacteria (e.g., <i>S. aureus</i> , methicillin-resistant <i>S. aureus</i> 3126, <i>B. subtilis</i> , and <i>S. epidermidis</i> with MIC50s=4-8 μ M), without compromising the viability of human erythrocytes, mouse RAW 264.7 macrophages, human HaCaT keratinocytes, or human HEK293 kidney cells at 25 μ M. It causes membrane depolarization in <i>E. coli</i> at 4 and 8 μ M and, upon preincubation at 10 μ M, decreases nitrite (NO ₂ -), Tnf- α , and IL-6 secretion in LPS-stimulated RAW 264.7 macrophages. In a murine model, Pap12-6 enhances survival rates and diminishes colony forming units (CFUs) in several organs upon <i>E. coli</i> infection at 10 mg/kg and 1 mg/kg doses, respectively. Additionally, at a 1 mg/kg dose, it lowers serum aspartate aminotransferase (AST) and alanine transaminase (ALT) levels, as well as blood urea nitrogen levels in <i>E. coli</i> -induced sepsis, indicating its therapeutic potential for bacterial infections without affecting host cell viability.
-------------	--

Solubility Information

Solubility	H ₂ O: soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.6079 mL	3.0393 mL	6.0787 mL
5 mM	0.1216 mL	0.6079 mL	1.2157 mL
10 mM	0.0608 mL	0.3039 mL	0.6079 mL
50 mM	0.0122 mL	0.0608 mL	0.1216 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481