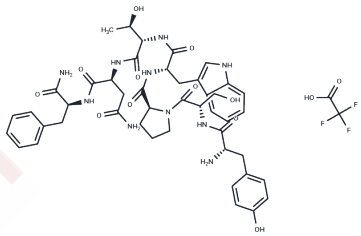
Data Sheet (Cat.No.TP1412)

TargetMol

RNAIII-inhibiting peptide TFA

Chemical Properties



CAS No. :

Formula: C47H57F3N10O13

Molecular Weight: 1027.01

Storage: Keep away from moisture
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	RNAIII-inhibiting peptide TFA (RNAIII-inhibiting peptide(TFA))(228544-21-6 free base) inhibits S. aureus, effective in the diseases such as cellulitis, keratitis, septic arthritis, osteomylitis and mastitis.
Targets(IC50)	Antibacterial
In vitro	The RNAIII inhibiting peptide (RIP) is able to inhibit S. aureus pathogenesis by disrupting QS mechanism competing with RAP, thus inhibiting the phosphorylation of TRAP. This alteration leads to a reduced adhesion and to the inhibition of RNAIII synthesis, with the subsequent suppression of toxins synthesis.

Solubility Information

Solubility	DMSO: 247.5 mg/mL (240.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9737 mL	4.8685 mL	9.737 mL
5 mM	0.1947 mL	0.9737 mL	1.9474 mL
10 mM	0.0974 mL	0.4869 mL	0.9737 mL
50 mM	0.0195 mL	0.0974 mL	0.1947 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.

Reference

Ciulla M , Di Stefano A , Marinelli L , et al. RNAIII Inhibiting Peptide (RIP) and Derivatives as Potential Tools for the Treatment of S. aureus Biofilm Infections[J]. Current Topics in Medicinal Chemistry, 2018, 18.

Giacometti A, et al. RNAIII-inhibiting peptide improves efficacy of clinically used antibiotics in a murine model of staphylococcal sepsis. Peptides. 2005 Feb;26(2):169-75.

Gov Y, et al. RNAIII inhibiting peptide (RIP), a global inhibitor of Staphylococcus aureus pathogenesis: structure and function analysis. Peptides. 2001 Oct;22(10):1609-20.

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