Micrococcin P1

Cat. No.: HY-125728  
CAS No.: 67401-56-3  
Molecular Formula: C₄₈H₄₉N₁₃O₉S₆  
Molecular Weight: 1144.37  
Target: Bacterial; Parasite; HCV  
Pathway: Anti-infection  
Storage: Please store the product under the recommended conditions in the COA.

BIOLOGICAL ACTIVITY

Description: Micrococcin P1 is a macrocyclic peptide antibiotic and is a potent hepatitis C virus (HCV) inhibitor with an EC₅₀ range of 0.1-0.5 μM[1]. Micrococcin P1 has in vitro antibacterial activity against Gram-positive bacterial strains. The MIC values of Micrococcin P1 against S. aureus 1974149, E. faecalis 1674621 and S. pyogenes 1744264 are 2 μg/mL, 1 μg/mL and 1 μg/mL, respectively[2]. Micrococcin P1 is also a potent inhibitor of the malaria parasite Plasmodium falciparum[3].

IC₅₀ & Target: HCV[1]; Bacterial[2]; Parasite[3]

In Vitro: Dose-response assays reveals Micrococcin P1 to be very potent with a minimal inhibitory concentration (MIC) of 32-63 nM. Cytotoxicity assays reveals no significant impairment on cell line growth (<10% inhibition at 30 mM) over a 40 h period for both the hepatic cell line HepG2 and the monocytic cell line THP-1, leading to a selectivity index greater than 500. Also investigates the intracellular activity of Micrococcin P1, it is active against GFP-expressing M. tuberculosis H37Rv growing inside RAW 264.7 macrophages with an IC₈₀ of about 1 mM with potency comparable with that of isoniazid[1].

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.