

Product Name : Isovalerylshikonin

Synonyms : —

Cat No. : M29255

CAS Number : 76549-35-4

Molecular Formula : C₂₁H₂₄O₆

Formula Weight : 372.4

Chemical Name : —

Description : Isovalerylshikonin is a natural product from *Onosma heterophylla* and *Arnebia euchroma*. (In Vitro): Isovalerylshikonin exhibited marginal antibacterial activity against drug-resistant *Staphylococcus aureus* RN4220, with an MIC of 16 mg/L. (In Vivo): A peritonitis/sepsis model was employed to test the in vivo synergistic activity of IVS and STM. IVS synergistically decreased the bacteria count with STM in peritoneal, spleen and liver, and increased mouse survival with STM in 7 days. The acute toxicity of IVS was tested, and the LD₅₀ of IVS with a single exposure was 2.584 g/kg in mice. Overall, isovalerylshikonin, a low toxicity resistance-modifying agent, exhibited synergistic antibacterial activities in vitro and in vivo against drug-resistant *S. aureus*. The effects were mediated by suppression of *msrA* mRNA expression and bacterial efflux.

Pathway : GPCR/G Protein

Target : Antibacterial

Receptor : Antibacterial

Solubility : —

SMILES : CC(C)CC(=O)OC(CC=C(C)C)C1=CC(=O)c2c(O)ccc(O)c2C1=O

Storage : (-20°C)

Stability : ≥ 2 years

Reference :