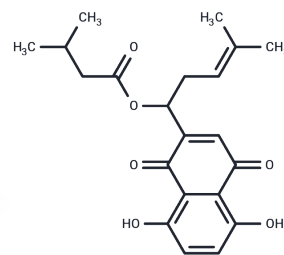


## Isovalerylshikonin

## Chemical Properties

CAS No. :	76549-35-4
Formula:	C <sub>21</sub> H <sub>24</sub> O <sub>6</sub>
Molecular Weight:	372.41
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Isovalerylshikonin is a natural product from <i>Onosma heterophylla</i> and <i>Arnebia euchroma</i> .
Targets(IC50)	Antibacterial
In vitro	Isovalerylshikonin exhibited marginal antibacterial activity against drug-resistant <i>Staphylococcus aureus</i> RN4220, with an MIC of 16 mg/L[1].
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 <i>S. aureus</i> . The effects were mediated by suppression of <i>msrA</i> mRNA expression and bacterial efflux[1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6852 mL	13.4261 mL	26.8521 mL
5 mM	0.537 mL	2.6852 mL	5.3704 mL
10 mM	0.2685 mL	1.3426 mL	2.6852 mL
50 mM	0.0537 mL	0.2685 mL	0.537 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

Jian-Ming, Shi-Chang, Sun, et al. Isovalerylshikonin, a new resistance-modifying agent from *Arnebia euchroma*, suppresses antibiotic resistance of drug-resistant *Staphylococcus aureus*. [J]. International journal of antimicrobial agents, 2018.

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