

Product Data Sheet

Antimicrobial agent-2

 Cat. No.:
 HY-146460

 CAS No.:
 2412592-33-5

 Molecular Formula:
 $C_{16}H_{14}N_2O_4S$

 Molecular Weight:
 330.36

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-кВ

Storage: Powder -20°C 3 years

 $\begin{array}{ccc} & 4^{\circ}\text{C} & 2 \text{ years} \\ \text{In solvent} & -80^{\circ}\text{C} & 6 \text{ months} \\ & -20^{\circ}\text{C} & 1 \text{ month} \end{array}$

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (302.70 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.0270 mL	15.1350 mL	30.2700 mL
	5 mM	0.6054 mL	3.0270 mL	6.0540 mL
	10 mM	0.3027 mL	1.5135 mL	3.0270 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (7.57 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Antimicrobial agent-2 (compound V-a) is a broad-spectrum antimicrobial agent, possessing inhibitory activity against various Gram-positive and -negative bacteria. Antimicrobial agent-2 has excellent inhibitory effect on Methicillin-resistant *Staphylococcus aureus* (MRSA) with a MIC of 1 µg/mL. Antimicrobial agent-2 can effectively damage the membrane and lead to the leakage of protein, also can induce the generation of ROS. Antimicrobial agent-2 exhibits low toxicity, no obvious resistance and good bioavailability^[1].

IC $_{50}$ & Target MIC: 1 $\mu g/mL$ (MRSA), 2 $\mu g/mL$ (Enterococcus faecalis) $^{[1]}$

REFERENCES

1]. Yang XC, et al. Coumarin thiazoles a	as unique structural skeleton of potential antimicrobial	agents. Bioorg Chem. 2022;124:105855.	
Caut	ion: Product has not been fully validated for med	lical applications. For research use only.	
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