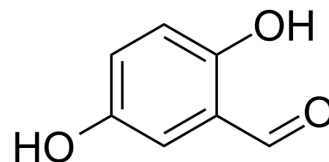


## 2,5-Dihydroxybenzaldehyde

Cat. No.:	HY-N1673		
CAS No.:	1194-98-5		
Molecular Formula:	C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>		
Molecular Weight:	138.12		
Target:	Bacterial		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (362.00 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	7.2401 mL	36.2004 mL	72.4008 mL
		5 mM	1.4480 mL	7.2401 mL	14.4802 mL
10 mM		0.7240 mL	3.6200 mL	7.2401 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (18.10 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (18.10 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	2,5-Dihydroxybenzaldehyde (Gentisaldehyde) is a naturally occurring antimicrobial that inhibits the growth of <i>Mycobacterium avium subsp. paratuberculosis</i> . 2,5-Dihydroxybenzaldehyde is active against <i>S. aureus</i> strains with a MIC <sub>50</sub> of 500 mg/L <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	MIC <sub>50</sub> : 500 mg/L ( <i>S. aureus</i> ) <sup>[2]</sup> <i>Mycobacterium avium subsp. paratuberculosis</i> <sup>[1]</sup>

### REFERENCES

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[1]. Stella W Nowotarska, et al. Mechanisms of Antimicrobial Action of Cinnamon and Oregano Oils, Cinnamaldehyde, Carvacrol, 2,5-Dihydroxybenzaldehyde, and 2-Hydroxy-5-Methoxybenzaldehyde Against Mycobacterium Avium Subsp. Paratuberculosis (Map). Foods. 2017 A

[2]. Andrea Schabauer, et al. Gentisaldehyde and Its Derivative 2,3-Dihydroxybenzaldehyde Show Antimicrobial Activities Against Bovine Mastitis Staphylococcus aureus. Front Vet Sci. 2018 Jul 11;5:148.

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

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