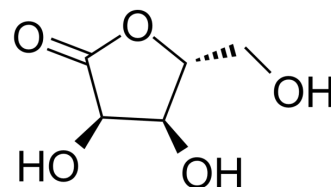


## D-Ribonolactone

<b>Cat. No.:</b>	HY-76691		
<b>CAS No.:</b>	5336-08-3		
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>8</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	148.11		
<b>Target:</b>	Endogenous Metabolite; Bacterial		
<b>Pathway:</b>	Metabolic Enzyme/Protease; Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 125 mg/mL (843.97 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	6.7517 mL	33.7587 mL	67.5174 mL
		5 mM	1.3503 mL	6.7517 mL	13.5035 mL
10 mM		0.6752 mL	3.3759 mL	6.7517 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.08 mg/mL (14.04 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (14.04 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.08 mg/mL (14.04 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	D-Ribonolactone is sugar lactone and an inhibitor of β-galactosidase of Escherichia coli with a K <sub>i</sub> of 26 mM <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite
<b>In Vitro</b>	Ki: 26 mM (β-galactosidase) MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Huber RE, et al. Strong inhibitory effect of furanoses and sugar lactones on beta-galactosidase Escherichia coli. Biochemistry. 1987 Mar 24;26(6):1526-31.

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

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