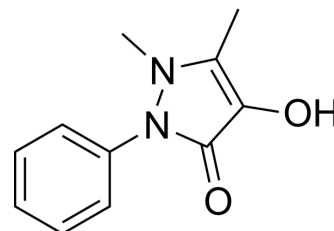


4-Hydroxyantipyrine

Cat. No.:	HY-B2150		
CAS No.:	1672-63-5		
Molecular Formula:	C ₁₁ H ₁₂ N ₂ O ₂		
Molecular Weight:	204.23		
Target:	Drug Metabolite		
Pathway:	Metabolic Enzyme/Protease		
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 (244.82 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.8964 mL	24.4822 mL	48.9644 mL
		5 mM	0.9793 mL	4.8964 mL	9.7929 mL
10 mM		0.4896 mL	2.4482 mL	4.8964 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (12.24 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (12.24 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	4-Hydroxyantipyrine (4-Hydroxyphenazone; NSC 174055) is the major metabolite of Antipyrine (HY-B0171), can be as a biodistribution promoter. 4-Hydroxyantipyrine can increase distribution of concentration ratio of Citicoline and Antipyrine in the brain ^{[1][2]} .
In Vitro	<p>4-Hydroxyantipyrine increase the tissue-to-plasma concentration ratio of Citicoline in the brain and liver and that of thiopental sodium in the brain, liver, and heart^[1].</p> <p>4-Hydroxyantipyrine enhances the blood-brain barrier (BBB) permeability of Antipyrine considering to be concerned with the increase of the K_p value of Antipyrine in the brain^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Ohkawa Y, et al. Effects of 4-hydroxyantipyrine and its 4-O-sulfate on antipyrine as biodistribution promoter. Biol Pharm Bull. 2001 May;24(5):529-34.
- [2]. Ohkawa Y, et al. Application of 4-hydroxyantipyrine and acetaminophen O-sulfate as biodistribution promoter. Biol Pharm Bull. 2001 Dec;24(12):1404-10.
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Caution: Product has not been fully validated for medical applications. For research use only.

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