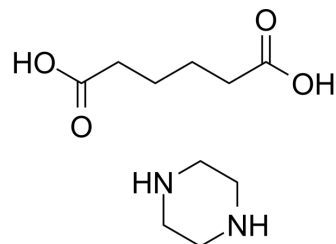


## Piperazine adipate

Cat. No.:	HY-B2186		
CAS No.:	142-88-1		
Molecular Formula:	C <sub>10</sub> H <sub>20</sub> N <sub>2</sub> O <sub>4</sub>		
Molecular Weight:	232.28		
Target:	Parasite		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 14.29 mg/mL (61.52 mM; Need ultrasonic)  
 DMSO : < 1 mg/mL (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.3051 mL	21.5257 mL	43.0515 mL
	5 mM	0.8610 mL	4.3051 mL	8.6103 mL
	10 mM	0.4305 mL	2.1526 mL	4.3051 mL

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

#### In Vivo

1. Add each solvent one by one: PBS  
 Solubility: 33.33 mg/mL (143.49 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

Piperazine adipate is a potent broad spectrum anthelmintic against many common worm infections in mammals.

#### In Vitro

Piperazine adipate (10 mM) causes mortality of *A. galli* and *H. gallinae* after a maximum of 30 min exposure, inhibits malate oxidation by 78%, and inhibits aldolase activity in both parasites. Piperazine adipate (10 mM) also inhibits cholinesterase activity by 96% in *Ascaridia galli* (*A. galli*) and 93% in *Heterakis gallinae* (*H. gallinae*). Piperazine adipate inhibits oxaloacetate reduction by 26% and 55% in *A. galli* and *H. gallinae*, respectively<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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[1]. Sharma RK, et al. Effect of parbendazole and piperazine adipate on the activity of some enzymes of *Ascaridia galli* and *Heterakis gallinae*. *Vet Parasitol.* 1987 May;24(3-4):211-20.

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

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