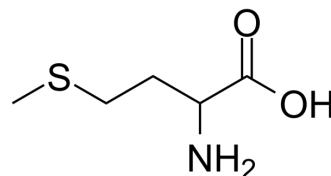


DL-Methionine

Cat. No.:	HY-N0325	
CAS No.:	59-51-8	
Molecular Formula:	C ₅ H ₁₁ NO ₂ S	
Molecular Weight:	149.21	
Target:	Parasite	
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

1M HCl : 100 mg/mL (670.20 mM; ultrasonic and adjust pH to 1 with HCl)
 H₂O : 33.33 mg/mL (223.38 mM; Need ultrasonic)
 DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		Concentration	1 mg	5 mg	10 mg
	1 mM		6.7020 mL	33.5098 mL	67.0196 mL
	5 mM		1.3404 mL	6.7020 mL	13.4039 mL
	10 mM		0.6702 mL	3.3510 mL	6.7020 mL

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

BIOLOGICAL ACTIVITY

Description

DL-Methionine is an essential amino acid containing sulfur with oxidative stress defense effects. DL-Methionine can be used for animal natural feed. DL-Methionine also kills *H. rostockiensis* on potato plants^{[1][2][3]}.

IC₅₀ & Target

H. rostockiensis^[1]

In Vitro

The impact of DL-Methionine supplementation on animal performance interacts strongly with the crude protein (CP) content of the diet. Supplementation of DLM to a 20% crude protein diet for broilers reduces their abdominal fat weight, whereas this is not the case when the diet contained 23% CP. Breast meat yield is increased and abdominal fat content is decreased with increasing DL-Methionine supplementation, and this response is more pronounced in chickens reared on a diet with a lower protein level (20.5% CP) compared with a higher protein level (26%)^[2].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

DL-methionine significantly decreases the numbers of males, females, cysts and eggs of *H. rostockiensis* on potato plants.

DL-methionine kills almost all the nematodes when applied 3 days after inoculation, and DL-methionine does not affect plant growth adversely^[1].

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

REFERENCES

[1]. K. Evans, et al. Effects of amino acids on the reproduction of *Heterodera rostochiensis*. *Nematologica*, 1971, 17(4), 495-500.

[2]. Swennen Q, et al. Effects of dietary protein content and 2-hydroxy-4-methylthiobutanoic acid or DL-methionine supplementation on performance and oxidative status of broiler chickens. *Br J Nutr.* 2011 Dec;106(12):1845-54.

[3]. Garlich JD. Response of broilers to DL-methionine hydroxy analog free acid, DL-methionine, and L-methionine. *Poult Sci.* 1985 Aug;64(8):1541-8.

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

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