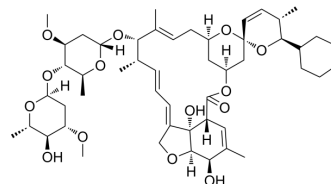


Doramectin

Cat. No.:	HY-17035
CAS No.:	117704-25-3
Molecular Formula:	C ₅₀ H ₇₄ O ₁₄
Molecular Weight:	899.11
Target:	Parasite; Antibiotic; Bacterial
Pathway:	Anti-infection
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (55.61 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.1122 mL	5.5611 mL	11.1221 mL
	5 mM	0.2224 mL	1.1122 mL	2.2244 mL
	10 mM	0.1112 mL	0.5561 mL	1.1122 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (2.78 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.5 mg/mL (2.78 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (2.78 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Doramectin is a derivative of Ivermectin (HY-15310). Doramectin is a potent antiparasitic antibiotic. Doramectin is an active compound against *S.mansoni* in an NMRI mouse infection model^{[1][2][3]}.

In Vivo

Doramectin (10 mg/kg) is active in vivo with worm burden reductions of 60.1% in worm burden reductions of *S.mansoni*-infected mice^[3].

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

CUSTOMER VALIDATION

- Mol Pharm. 2022 Oct 21.
- Viruses. 2023 Apr 27, 15(5), 1068.
- bioRxiv. 2023 Jan 31.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Davey RB, Pound JM, Klavons JA, Lohmeyer KH, Freeman JM, Olafson PU. Analysis of doramectin in the serum of repeatedly treated pastured cattle used to predict the probability of cattle fever ticks (Acari: Ixodidae) feeding to repletion. *Exp Appl Acarol*. 2012 Apr;56(4):365-74. doi: 10.1007/s10493-012-9525-1.
- [2]. Wang XJ, Zhang J, Wang JD, Huang SX, Chen YH, Liu CX, Xiang WS. Four new doramectin congeners with acaricidal and insecticidal activity from *Streptomyces avermitilis* NEAU1069. *Chem Biodivers*. 2011 Nov;8(11):2117-25. doi: 10.1002/cbdv.201000295.
- [3]. Gordana Panic, et al. Activity Profile of an FDA-Approved Compound Library against *Schistosoma mansoni*. *PLoS Negl Trop Dis*. 2015 Jul 31;9(7):e0003962.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA