

Product Data Sheet

Product Name: Doramectin

Cat. No.: GC12780

Chemical Properties

Cas. No. 117704-25-3

SMILES CC1/C=C/C=C2COC3C\2(O)C(C(OC4CC(OC5(G=CC(C)C(C6CCCCC6)O5)C4)C/C=C(C)/C1OC7CC(OC)C(OC8CC(OC)C(O)C(C)O8)C(C)O7)=O)C=C(C)C3O

Formula C₅₀H₇₄O₁₄ M.Wt 899.11

Solubility ≥ 89.9 mg/mL in DMSO, ≥ 14.43 mg/mL in EtOH with gentle warming
Storage -20°C, protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

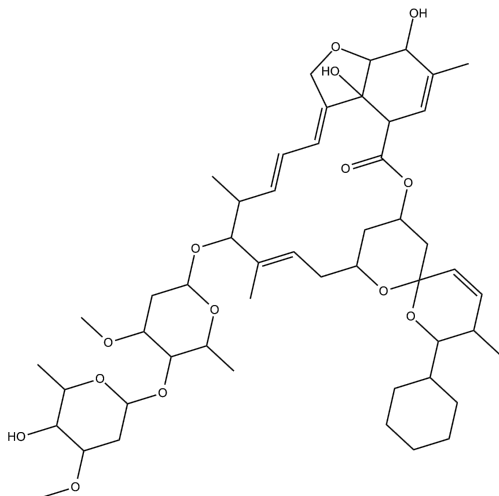
Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Structure



Background

Doramectin is an antiparasitic agent. IC₅₀ Value: Target: Antiparasitic Doramectin (Dectomax) is a veterinary drug approved by the Food and Drug Administration (FDA) for the treatment of parasites such as gastrointestinal roundworms, lungworms, eyeworms, grubs, sucking lice and mange mites in cattle. Mutational biosynthetic antiparasitic antibiotic structurally related to the avermectins.

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

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congeners with acaricidal and insecticidal activity from *Streptomyces avermitilis* NEAU1069. *Chem Biodivers.* 2011 Nov;8(11):2117-25. doi: 10.1002/cbdv.201000295.

[3]. Sarre C, Claerebout E, Vercruysse J, Levecke B, Geldhof P, Pardon B, Alvinerie M, Sutra JF, Geurden T. Doramectin resistance in *Haemonchus contortus* on an alpaca farm in Belgium. *Vet Parasitol.* 2012 Apr 30;185(2-4):346-51.

[4]. Lobetti R. Successful resolution of oesophageal spirocercosis in 20 dogs following daily treatment with oral doramectin. *Vet J.* 2012 Jul;193(1):277-8.

[5]. Wang JB, Pan HX, Tang GL. Production of doramectin by rational engineering of the avermectin biosynthetic pathway. *Bioorg Med Chem Lett.* 2011 Jun 1;21(11):3320-3.

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