Doramectin

**Cat. No.:** HY-17035

**CAS No.:** 117704-25-3

**Molecular Formula:** C₅₀H₇₄O₁₄

**Molecular Weight:** 899.11

**Target:** Parasite

**Pathway:** Anti-infection

**Storage:** -20°C, protect from light

### Solvent & Solubility

**In Vitro**

DMSO : ≥ 50 mg/mL (55.61 mM)

* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.1122 mL</td>
<td>5.5611 mL</td>
<td>11.1221 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.2224 mL</td>
<td>1.1122 mL</td>
<td>2.2244 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1112 mL</td>
<td>0.5561 mL</td>
<td>1.1122 mL</td>
</tr>
</tbody>
</table>

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (2.78 mM); Clear solution

2. 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

### BIOLOGICAL ACTIVITY

**Description**

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.


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

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