**Nifuratel**

**Cat. No.:** HY-A0059  
**CAS No.:** 4936-47-4  
**Molecular Formula:** C₁₀H₁₁N₃O₅S  
**Molecular Weight:** 285.28  
**Target:** Bacterial; 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

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>1 mM</td>
<td>3.5053 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>17.5266 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>35.0533 mL</td>
</tr>
</tbody>
</table>

DMSO: 50 mg/mL (175.27 mM; Need ultrasonic)  
H₂O: < 0.1 mg/mL (insoluble)

- **Preparation of Stock Solutions**
  - 10 mM: 0.3505 mL  
  - 5 mM: 0.7011 mL  
  - 1 mM: 3.5053 mL

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

#### In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 2.5 mg/mL (8.76 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (8.76 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**

Nifuratel (NF 113, SAP 113) is a broad antibacterial spectrum agent, which is used as an antibacterial, antifungal, and antiprotozoal (Trichomonas). IC₅₀ Value: 0.125-1 μg/mL (MIC, A. vaginae) [1]

**Target:** Antibacterial; Antiprotozoal  
In vitro: In vitro, nifuratel is able to inhibit the growth of A. vaginae, with a MIC range of 0.125-1 μg/mL; it is active against G. vaginalis and does not affect lactobacilli [1].

**in vivo:** Patients were randomized to receive a 2-week course of bismuth subcitrate (8 mg/kg/day, q.d.s.), amoxicillin (50 mg/kg/day, q.d.s.), with either nifuratel (15 mg/kg/day, q.d.s.) or furazolidone (10 mg/kg/day, q.d.s.), plus omeprazole (0.5 mg/kg, once daily) [2].

**Toxicity:** There were no serious adverse reactions and were no withdrawals due to any side-effects. All of side-effects were self-limiting (dark stools, urine discoloration, blackening of the tongue, and others) [3].

**Clinical trial:** N/A
REFERENCES

