**Trifluorothymidine**

**Cat. No.:** HY-A0061  
**CAS No.:** 70-00-8  
**Molecular Formula:** C₁₀H₁₁F₃N₂O₅  
**Molecular Weight:** 296.2  
**Target:** Nucleoside Antimetabolite/Analog; Thymidylate Synthase  
**Pathway:** Cell Cycle/DNA Damage; Apoptosis  
**Storage:**  
- Powder  
  -4°C  2 years  
  -20°C  3 years  
- In solvent  
  -80°C  6 months  
  -20°C  1 month

**Solvent & Solubility**

| In Vitro | DMSO: ≥ 100 mg/mL (337.61 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>1 mM</td>
<td></td>
<td>3.3761 mL</td>
<td>16.8805 mL</td>
<td>33.7610 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.6752 mL</td>
<td>3.3761 mL</td>
<td>6.7522 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.3376 mL</td>
<td>1.6880 mL</td>
<td>3.3761 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 (8.44 mM); Clear solution |
|---------|-------------------------------------------------|
|         | 2. Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**  
Solubility: ≥ 2.5 mg/mL (8.44 mM); Clear solution |
|         | 3. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**  
Solubility: ≥ 2.5 mg/mL (8.44 mM); Clear solution |

**BIOLOGICAL ACTIVITY**

**Description**  
Trifluridine is an irreversible thymidylate synthase inhibitor, and thereby suppresses DNA synthesis. Trifluridine is an antiviral drug for herpes simplex virus (HSV) infection.

**REFERENCES**


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

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