5-Methyltetrahydrofolic acid

**Cat. No.:** HY-113046  
**CAS No.:** 134-35-0  
**Molecular Formula:** C₂₀H₂₅N₇O₆  
**Molecular Weight:** 459.46  
**Target:** Endogenous Metabolite  
**Pathway:** Metabolic Enzyme/Protease  
**Storage:**  
- Powder: -20°C 3 years, 4°C 2 years  
- In solvent: -80°C 6 months, -20°C 1 month  

### SOLVENT & SOLUBILITY

#### In Vitro

dMSO : 83.33 mg/mL (181.37 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Concentration</td>
<td>1 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>2.1765 mL</td>
<td>10.8823 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4353 mL</td>
<td>2.1765 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2176 mL</td>
<td>1.0882 mL</td>
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</tbody>
</table>

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: ≥ 2.08 mg/mL (4.53 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (4.53 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (4.53 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
5-Methyltetrahydrofolic acid (5-Methyl THF) is a biologically active form of folic acid. 5-Methyltetrahydrofolic acid is a methylated derivative of tetrahydrofolate. 5-Methyltetrahydrofolic acid is the predominant natural dietary folate and the principal form of folate in plasma and cerebrospinal fluid[1].

**IC₅₀ & Target**  
Human Endogenous Metabolite