**Azathioprine**

Cat. No.: HY-B0256  
CAS No.: 446-86-6  
Molecular Formula: C₉H₇N₇O₂S  
Molecular Weight: 277.26  
Target: Others  
Pathway: Others  
Storage: 4°C, protect from light  

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

---

### SOLVENT & SOLUBILITY

**In Vitro**  
DMSO : 50 mg/mL (180.34 mM; Need ultrasonic)  
H₂O : < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Preparing</th>
<th>Mass</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Solutions</td>
<td>1 mM</td>
<td>3.6067 mL</td>
<td>18.0336 mL</td>
<td>36.0672 mL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.7213 mL</td>
<td>3.6067 mL</td>
<td>7.2134 mL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.3607 mL</td>
<td>1.8034 mL</td>
<td>3.6067 mL</td>
<td></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 >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (9.02 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (9.02 mM); Clear solution

---

### BIOLOGICAL ACTIVITY

**Description**

Azathioprine (Azasan, Imuran; BW 57-322) is a drug that suppresses the immune system and is used in organ transplantation and autoimmune disease. Target: Azathioprine is an immunosuppressive antimetabolite pro-drug. It is an imidazolyl derivative of 6-mercaptopurine and many of its biological effects are similar to those of the parent compound. Azathioprine is converted into 6-mercaptopurine in the body where it blocks purine metabolism and DNA synthesis. Thus it most strongly affects proliferating cells, such as the T cells and B cells of the immune system. The main adverse effect of azathioprine is bone marrow suppression, which can be life-threatening, especially in people with a genetic deficiency of the enzyme thiopurine S-methyltransferase. It is also listed by the International Agency for Research on Cancer as a Group 1 carcinogen (carcinogenic to humans) [1-3].
REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.
Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA