**Salicylamide**

Cat. No.: HY-B0811  
CAS No.: 65-45-2  
Molecular Formula: C₇H₇NO₂  
Molecular Weight: 137.14  
Target: Others  
Pathway: Others  
Storage: 4°C, protect from light

---

**SOLVENT & SOLUBILITY**

**In Vitro**

DMSO: ≥ 100 mg/mL (729.18 mM)  
H₂O: 0.1 mg/mL (0.73 mM; Need ultrasonic)  
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solvent</td>
<td>Concentration</td>
<td>1 mg</td>
<td>5 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td></td>
<td>DMSO</td>
<td>1 mM</td>
<td>7.2918 mL</td>
<td>36.4591 mL</td>
<td>72.9182 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mM</td>
<td>1.4584 mL</td>
<td>7.2918 mL</td>
<td>14.5836 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mM</td>
<td>0.7292 mL</td>
<td>3.6459 mL</td>
<td>7.2918 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% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution

---

**BIOLOGICAL ACTIVITY**

**Description**

Salicylamide is an inhibitor of microsomal UDP-glucuronosyltransferase. Salicylamide is an analgesic and anti-pyretic agent.

**In Vitro**

Treatment with salicylamides leads to the bacterial growth inhibition which correlates with the level of inhibition of sulfate reduction[^1].
In Vivo
Salicylamide administration decreases the levels of radiosulfate in maternal serum and placenta, and impaires the incorporation of radiosulfate into fetal skeletal GAGs. Salicylamide administration results in a decrease in the calcium content of fetal limb bones, but has no significant effect on maternal serum calcium[2]. Salicylamide administration decreases radiosulfate uptake by maternal serum and liver, fetus and placenta—effects being dose-dependent. Differences in radiosulfate uptake by the fetus and placenta over time, induced by salicylamide, are also significant independently of maternal serum levels of radiosulfate[3].

PROTOCOL
Animal Administration[2]
Rats: Pregnant rats are fed 25% casein diet with or without 2% salicylamide from day 6 to day 17 or day 19 of gestation. The dams are killed on day 17 or day 19 of gestation, 24 hours following an intramuscular injection of sodium 35S-sulfate[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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