Ro 41-1049 hydrochloride

**Cat. No.:** HY-100027A  
**CAS No.:** 127917-66-2  
**Molecular Formula:** C₁₂H₁₃ClFN₃OS  
**Molecular Weight:** 301.77  
**Target:** Monoamine Oxidase  
**Pathway:** Neuronal Signaling  
**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: ≥ 32 mg/mL (106.04 mM)  
*“≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>3.3138 mL</td>
<td>16.5689 mL</td>
<td>33.1378 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.6628 mL</td>
<td>3.3138 mL</td>
<td>6.6276 mL</td>
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<tr>
<td></td>
<td>10 mM</td>
<td>0.3314 mL</td>
<td>1.6569 mL</td>
<td>3.3138 mL</td>
</tr>
</tbody>
</table>

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

**BIOLOGICAL ACTIVITY**

**Description**  
Ro 41-1049 hydrochloride is a selective, reversible, orally-active MAO-A inhibitor. Target: MAO in vivo: Ro 41-1049 is an inhibitor of the enzyme monoamine oxidase type A (MAO-A) to rats and monitored extracellular catecholamine levels in the corpus striatum before and after the intraperitoneal (IP) administration of a bolus of L-dopa. Acute administration of Ro 41-1049 (1-50 mg/kg IP) produced a dose-dependent decrease in basal levels of the dopamine metabolites 3,4-dihydroxyphenylacetic acid (DOPAC) and homovanillic acid (HVA) and an increase in basal levels of dopamine. In rats treated with Ro 41-1049 (20 mg/kg IP), L-dopa administration (100 mg/kg IP) produced a greater increase in striatal levels of dopamine than it did in controls, while DOPAC and HVA formation was attenuated. We conclude that inhibition of central MAO-A activity promotes synaptic accumulation of dopamine following administration of pharmacological doses of L-dopa.

**REFERENCES**


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