**SMND-309**

**Cat. No.**
HY-13056

**CAS No.**
1065559-56-9

**Molecular Formula:**
C₁₈H₁₄O₈

**Molecular Weight**
358.3

**Target:**
Others

**Pathway:**
Others

**Storage:**
- **Powder**
  - -20°C 3 years
  - 4°C 2 years
- **In solvent**
  - -80°C 6 months
  - -20°C 1 month

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**SOLVENT & SOLUBILITY**

**In Vitro**

DMSO: $\geq 3.7$ mg/mL (10.33 mM)

*“≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<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>2.7910 mL</td>
<td>13.9548 mL</td>
<td>27.9096 mL</td>
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Prep. Stock Solutions

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

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**BIOLOGICAL ACTIVITY**

**Description**
SMND-309 is a metabolite of salvianolic acid B, and exhibits neuroprotective effects in cultured neurons and in permanent middle cerebral artery occlusion rats\(^\text{[1]}\)\(^\text{[2]}\).

**In Vivo**

SMND-309 (2.5-10 mg/kg; oral intragastric; once a day; for 4 weeks; male Sprague-Dawley rats) treatment ameliorates liver function and decreases the elevation of serum hyaluronic acid, laminin, procollagen type III levels and hydroxyproline content in liver tissue. SMND-309 also decreases the elevation in the malondialdehyde level and restored the decrease in superoxide dismutase and glutathione peroxidase activities. SMND-309 treatment reduces the liver damage and the liver fibrosis grade. SMND-309 treatment powerfully down-regulated the expression of connective tissue growth factor (CTGF) in serum and liver\(^\text{[1]}\).

**Animal Model:**
Male Sprague-Dawley rats (180-200 g) with carbon tetrachloride\(^\text{[1]}\)
<table>
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<th><strong>Dosage:</strong></th>
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<td><strong>Administration:</strong></td>
<td>Oral intragastric; once a day; for 4 weeks</td>
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<tr>
<td><strong>Result:</strong></td>
<td>The antifibrotic mechanisms might be associated with its ability to suppress the expression of CTGF as well as scavenge lipid peroxidation products and increase endogenous antioxidant enzyme activity.</td>
</tr>
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</table>

**REFERENCES**
