Enoximone

**Cat. No.:** HY-B1639

**CAS No.:** 77671-31-9

**Molecular Formula:** C₁₂H₁₂N₂O₂S

**Molecular Weight:** 248.3

**Target:** Phosphodiesterase (PDE)

**Pathway:** Metabolic Enzyme/Protease

**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**

<table>
<thead>
<tr>
<th><strong>In Vitro</strong></th>
<th><strong>DMSO</strong> : 8.33 mg/mL (33.55 mM; Need ultrasonic)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation Stock Solutions</strong></td>
<td><strong>Concentration</strong></td>
<td><strong>Solvent</strong></td>
<td><strong>Mass</strong></td>
</tr>
<tr>
<td>1 mM</td>
<td>4.0274 mL</td>
<td>20.1369 mL</td>
<td>40.2739 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.8055 mL</td>
<td>4.0274 mL</td>
<td>8.0548 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.4027 mL</td>
<td>2.0137 mL</td>
<td>4.0274 mL</td>
</tr>
</tbody>
</table>

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

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**BIOLOGICAL ACTIVITY**

**Description**
Enoximone is an inotropic vasodilating agent and a selective and orally active phosphodiesterase III (PDE3) inhibitor with an IC₅₀ of 5.9 μM. Enoximone induces vasodilation and increases intracellular levels of cAMP by inhibiting cGMP-inhibited PDE. Enoximone also exhibits PDE4 inhibitory effect with an IC₅₀ of 21.1 μM for myocardial PDE4A. Enoximone has the potential for congestive heart failure research and has bronchodilatory, antiasthma and anti-inflammatory effects[1][2][3].

**IC₅₀ & Target**
- PDE3/PDE IV: 5.9 μM (IC₅₀)
- PDE4A: 21.1 μM (IC₅₀, myocardial PDE4A)

**In Vitro**
In vitro, 10 μM Enoximone-treated bronchoalveolar lavage (BAL) eosinophils induced by IL-33 treatment shows significantly lower CD11b expression when compared with diluent-treated BAL eosinophils[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**
Topical Enoximone (25 μg; intratracheal route) abrogates house dust mite (HDM)-induced allergic airway inflammation[1]. The Enoximone-treated (25 μg; for 5 days) HDM-exposed mice shows significant reductions in inflammatory cell numbers including eosinophils, macrophages, neutrophils, ILC2s, and T cells, indicating that Enoximone treatment reduces airway...
inflammation[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

