ATB-346

Cat. No.: HY-15028
CAS No.: 1226895-20-0
Molecular Formula: C₂₁H₁₉NO₃S
Molecular Weight: 365.45
Target: COX
Pathway: Immunology/Inflammation
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 : ≥ 51.6 mg/mL (141.20 mM)
* “≥” means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent 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>2.7364 mL</td>
<td>13.6818 mL</td>
<td>27.3635 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.5473 mL</td>
<td>2.7364 mL</td>
<td>5.4727 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2736 mL</td>
<td>1.3682 mL</td>
<td>2.7364 mL</td>
</tr>
</tbody>
</table>

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

BIOLOGICAL ACTIVITY

Description
ATB-346 is a novel hydrogen sulphide-releasing derivative of naproxen with markedly reduced toxicity. IC₅₀ value: Target: COX-2 ATB-346 suppressed gastric prostaglandin E(2) synthesis as effectively as naproxen, but produced negligible damage in the stomach and intestine. Unlike naproxen and celecoxib, ATB-346 accelerated healing of pre-existing gastric ulcers. In a mouse airpouch model, ATB-346 suppressed cyclooxygenase-2 activity and inhibited leukocyte infiltration more effectively than naproxen. ATB-346 was as effective as naproxen in adjuvant-induced arthritis in rats, with a more rapid onset of activity. Unlike naproxen, ATB-346 did not elevate blood pressure in hypertensive rats [1]. Treatment with ATB-346 exhibited a significantly more rapid and sustained recovery of motor function, achieving greater than double the increase in locomotion score of the naproxen group by the 10th day of treatment. ATB-346 also significantly reduced the severity of inflammation (proinflammatory cytokines, apoptosis of neural tissue, and nitrosative stress) that characterized the secondary effects of SCI [2].

REFERENCES

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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