Suprofen

Cat. No.: HY-B0270
CAS No.: 40828-46-4
Molecular Formula: $\text{C}_{14}\text{H}_{12}\text{O}_3\text{S}$
Molecular Weight: 260.31
Target: PGE synthase
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: ≥ 100 mg/mL (384.16 mM)
* “≥” means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>3.8416 mL</td>
<td>19.2079 mL</td>
<td>38.4157 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.7683 mL</td>
<td>3.8416 mL</td>
<td>7.6831 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.3842 mL</td>
<td>1.9208 mL</td>
<td>3.8416 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 >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**

Suprofen (TN-762) is a non-steroidal anti-inflammatory drug (NSAID).

**IC$_{50}$ & Target**

PGE synthase$^{[1]}$

**In Vitro**

Suprofen (TN-762) is an NSAID. Suprofen (TN-762) is an ibuprofen-type anti-inflammatory analgesic and antipyretic.
It inhibits prostaglandin synthesis and has been proposed as an anti-arthritic. Suprofen was clinically effective but the differential suppression of prostanoids favors 200mg which spares 6-keto PGF1α[1].

REFERENCES
