(R)-GNE-140

Cat. No.: HY-100742A
CAS No.: 2003234-63-5
Molecular Formula: C₂₅H₂₃ClN₂O₃S₂
Molecular Weight: 499.04
Target: Lactate Dehydrogenase
Pathway: Metabolic Enzyme/Protease
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 : ≥ 14.43 mg/mL (28.92 mM)
H₂O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.0038 mL</td>
<td>10.0192 mL</td>
<td>20.0385 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4008 mL</td>
<td>2.0038 mL</td>
<td>4.0077 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2004 mL</td>
<td>1.0019 mL</td>
<td>2.0038 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 (5.01 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.01 mM); Suspended solution; Need ultrasonic

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(R)-GNE-140 is a potent lactate dehydrogenase A (LDHA) inhibitor, with IC₅₀s of 3 nM and 5 nM for LDHA and LDHB, respectively; (R)-GNE-140 is 18-fold more potent than S enantiomer.

IC₅₀ & Target

IC₅₀: 3 nM (LDHA), 5 nM (LDHB) [¹]
In Vitro

(R)-GNE-140 inhibits proliferation in 37 of 347 cancer cell lines tested at a potency cut off of 5 μM. (R)-GNE-140 shows inhibitory effect on two chondrosarcoma (bone) cancer cell lines that harbor IDH1 mutations, with IC₅₀ of 0.8 μM[1].

In Vivo

(R)-GNE-140 (5 mg/kg) has high bioavailability in mice. At higher oral doses, ranging from 50 to 200 mg/kg, (R)-GNE-140 displays greater exposure.

CUSTOMER VALIDATION


See more customer validations on www.MedChemExpress.com

REFERENCES


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