Safinamide

Cat. No.: HY-70057
CAS No.: 133865-89-1
Molecular Formula: C₁₇H₁₉FN₂O₂
Molecular Weight: 302.34
Target: Monoamine Oxidase
Pathway: Neuronal Signaling
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 (330.75 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Mass Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.3075 mL</td>
<td>16.5377 mL</td>
<td>33.0753 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6615 mL</td>
<td>3.3075 mL</td>
<td>6.6151 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3308 mL</td>
<td>1.6538 mL</td>
<td>3.3075 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: ≥ 2.75 mg/mL (9.10 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.75 mg/mL (9.10 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.75 mg/mL (9.10 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Safinamide (FCE 26743) selectively and reversibly inhibits MAO-B with IC₅₀ of 98 nM, exhibits 5918-fold selectivity against MAO-A[1].

IC₅₀ & Target
IC₅₀: 98 nM (MAO-B)[1]
Safinamide (FCE 26743) is a highly selective and reversible monoamine oxidase type B (MAO-B) inhibitor that increases neostriatal dopamine concentration. In addition, Safinamide (FCE 26743) is voltage-dependent sodium and calcium channel blocker. Safinamide (FCE 26743) appears to bind to the batrachotoxin-sensitive site 2 of the voltage-sensitive sodium channels. Safinamide blocks N and L-type calcium channels and inhibits glutamate and aspartate release from synaptic terminals[1].

REFERENCES


