RIP2 kinase inhibitor 2

Cat. No.: HY-19761
CAS No.: 1581270-11-2
Molecular Formula: C₂₁H₂₈N₄O₄S
Molecular Weight: 432.54
Target: RIP kinase
Pathway: Apoptosis
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 : 5 mg/mL (11.56 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.3119 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4624 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2312 mL</td>
</tr>
</tbody>
</table>

In Vivo
1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 0.5 mg/mL (1.16 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 0.5 mg/mL (1.16 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 0.5 mg/mL (1.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
RIP2 kinase inhibitor 2 is a receptor interacting protein-2 (RIP2) kinase inhibitor extracted from patent WO/2014043437 A1, compound example 9.

IC₅₀ & Target
RIP2 Kinase[1]

In Vitro
RIP2 kinase inhibitor 2 is a novel prodrug of a quinazolyl amine that inhibits RIP2 kinase. Receptor interacting
protein-2 (RIP2) kinase is a TKL family serine/threonine protein kinase involved in innate immune signaling. Following activation, RIP2 kinase associates with NOD1 or NOD2 and appears to function principally as a molecular scaffold to bring together other kinases (TAK1, IKKα/β/γ) involved in NF-κB and mitogen-activated protein kinase activation[1].

PROTOCOL

Animal Administration[1]

Rats[1]

Rats are orally pre-dosed with the RIP2 kinase inhibitor 2, at doses of 0.016, 0.16 and 1.6 mg/kg (n=8 rats/group), followed by dosing with L18-MDP (50 μg/rat) 0.25 hours after pre-dosing with the compound. The IL8 cytokine levels and percentage levels are calculated as the mean±standard error of the mean (n=8 rats/group).

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

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.

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