**Alisol B 23-acetate**

**Cat. No.:** HY-N0805  
**CAS No.:** 26575-95-1  
**Molecular Formula:** C₃₂H₅₀O₅  
**Molecular Weight:** 514.74  
**Target:** Others  
**Pathway:** Others  
**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: 50 mg/mL (97.14 mM; Need ultrasonic)  
- H₂O: < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>DMSO</td>
<td>1 mM</td>
<td>1.9427 mL</td>
<td>9.7136 mL</td>
<td>19.4273 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3885 mL</td>
<td>1.9427 mL</td>
<td>3.8855 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1943 mL</td>
<td>0.9714 mL</td>
<td>1.9427 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 (4.86 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (4.86 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**
Alisol B 23-acetate, a natural triterpenoid, produces protective effects against EE-induced cholestasis, due to FXR-mediated gene regulation. 

IC₅₀ Value: Target: Anti-hepatotoxic natural product. In vitro: Alisol B 23-acetate has an effect on FXR activation in a dose-dependent manner using luciferase reporter assay in HepG2 cells [3]. 

In vivo: In alisol B 23-acetate-treated mice, the changes in transporters and enzymes, as well as ameliorative liver histology were abrogated by FXR antagonist guggulsterone [1]. Alisol B 23-acetate treatment in a dose-dependent manner resulted in protection against hepatotoxicity induced by CCl₄ via FXR activation. Through FXR activation, alisol B 23-acetate promoted hepatocyte proliferation via an induction in hepatic levels of FoxM1b, Cyclin D1 and Cyclin B1. Alisol B 23-acetate also reduced hepatic bile acids through a decrease in hepatic uptake transporter Ntcp, bile acid synthetic
enzymes Cyp7a1, Cyp8b1, and an increase in efflux transporter Bsep, Mrp2 expression. In addition, alisol B 23-acetate induced the expression of STAT3 phosphorylation, and STAT3 target genes Bcl-xl and SOCS3, resulting in decreased hepatocyte apoptosis [2].

REFERENCES


