23-Hydroxybetulinic acid

**Cat. No.:** HY-N0566  
**CAS No.:** 85999-40-2  
**Molecular Formula:** C₃₀H₄₈O₄  
**Molecular Weight:** 472.7  
**Target:** Apoptosis  
**Pathway:** Apoptosis  
**Storage:** -20°C, protect from light  
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**SOLVENT & SOLUBILITY**

<table>
<thead>
<tr>
<th>In Vitro</th>
<th>DMSO : 100 mg/mL (211.55 mM; Need ultrasonic)</th>
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</thead>
<tbody>
<tr>
<td><strong>Preparation of Stock Solutions</strong></td>
<td><strong>Concentration</strong></td>
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<tr>
<td>1 mM</td>
<td>1 mg</td>
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<tr>
<td>5 mM</td>
<td>5 mg</td>
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<tr>
<td>10 mM</td>
<td>10 mg</td>
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Please refer to the solubility information to select the appropriate solvent.

| In Vivo | 1. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution |

**BIOLOGICAL ACTIVITY**

**Description**

23-hydroxybetulinic acid is one of the bioactive components responsible for its anticancer activity. In vitro: 23-hydroxybetulinic acid also shows different proliferation inhibitory activity against B16, HeLa, and HUVEC, with the IC50 value of 78.5, 80, and 94.8 uM, respectively. 23-hydroxybetulinic acid can promote cell cycle arrest at S phase and induce apoptosis via intrinsic pathway. 23-hydroxybetulinic acid disrupts mitochondrial membrane potential significantly (p<0.01) and selectively downregulates the levels of Bcl-2, survivin and upregulates Bax, cytochrome C, cleaved caspase-9 23-hydroxybetulinic acid can induce apoptosis in K562 cells. [1] 23-hydroxybetulinic acid enhances sensitivity of doxorubicin (DOX, ADR) on MCF-7/ADR cell lines, indicating its potential to be developed as a novel MDR modulator. [2] 23-HBA significantly improve the sensitivity of the tumor to doxorubicin. [3]

**REFERENCES**
