Aloin

Cat. No.: HY-N0123
CAS No.: 1415-73-2
Molecular Formula: C₂₁H₂₂O₉
Molecular Weight: 418.39
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

<table>
<thead>
<tr>
<th></th>
<th>In Vitro DMSO : ≥ 27 mg/mL (64.53 mM)</th>
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</thead>
<tbody>
<tr>
<td><strong>Solvent</strong></td>
<td><strong>Mass</strong></td>
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<tr>
<td><strong>Concentration</strong></td>
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<tr>
<td>1 mM</td>
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<tr>
<td>5 mM</td>
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<td>10 mM</td>
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Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description
Aloin (Aloin-A; Barbaloin-A) is a natural antitumor anthraquinone glycoside with iron chelating and non-atherogenic activities. IC50 value:

Target: in vitro: Aloin significantly inhibited HUVECs proliferation, migration and tube formation in vitro. suppressed activation of VEGF receptor (VEGFR) 2 and STAT3 phosphorylation in endothelial cells. In addition, the constitutively activated STAT3 protein, and the expression of STAT3-regulated antiapoptotic (Bcl-xL), proliferative (c-Myc), and angiogenic (VEGF) proteins were also down-regulated in response to AL in human SW620 cancer cells [1]. aloin exerted inhibition of cell proliferation, adhesion and invasion abilities of B16-F10 melanoma cells under non-cytotoxic concentrations. Furthermore, aloin induced melanoma cell differentiation through the enhancement of melanogenesis and transglutaminase activity [2].in vivo: Aloin substantially reduced tumor volumes and weight in vivo mouse xenografts, without obviously toxicity [1]. Aloin (10, 30 mg/kg bw) or vehicle was given by gavage to mice after each alcohol administration. Alcohol elevated the serum transaminases alanine aminotransferase, aspartate aminotransferase, total cholesterol and triglyceride levels which were significantly attenuated by the co-administration of aloin (p < 0.05) [3].
REFERENCES

