**Bavachalcone**

Cat. No.: HY-N0231  
CAS No.: 28448-85-3  
Molecular Formula: C₂₀H₂₀O₄  
Molecular Weight: 324.37  
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: ≥ 34 mg/mL (104.82 mM)  
*“≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>DMSO: ≥ 34 mg/mL (104.82 mM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Mass</td>
<td>1 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>3.0829 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6166 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3083 mL</td>
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</tbody>
</table>

Please refer to the solubility information to select the appropriate solvent.

**BIOLOGICAL ACTIVITY**

**Description**  
Bavachalcone is a major bioactive compounds isolated from Psoralea corylfolia L.; has been widely used as traditional Chinese medicine; antibiotic or anticancer agent. IC₅₀ value: Target: Bavachalcone inhibited osteoclast formation from precursor cells with the IC₅₀ value of approximately 1.5 microg mL⁻¹. The activation of MEK, ERK, and Akt by receptor activator of nuclear factor kappaB ligand (RANKL), the osteoclast differentiation factor, was prominently reduced in the presence of bavachalcone. The induction of c-Fos and NFATc1, key transcription factors for osteoclastogenesis, by RANKL was also suppressed by bavachalcone [1]. Bavachalcone exhibited a significant inhibitory effect on baculovirus-expressed BACE-1 in vitro [2]. Bavachalcone had stronger inhibition on UGT1A1 and UGT1A7 than corylin which did not inhibit UGT1A1, UGT1A3, UGT1A7, UGT1A8, UGT1A10, and UGT2B4. Data fitting using Dixon and Lineweaver-Burk plots demonstrated the noncompetitive inhibition of bavachalcone against UGT1A1 and UGT1A7-mediated 4-MU glucuronidation reaction. The values of inhibition kinetic parameters (Ki) were 5.41 μM and 4.51 μM for UGT1A1 and UGT1A7, respectively [3].
REFERENCES


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