**7,4'-Dihydroxyflavone**

**Cat. No.:** HY-N2609  
**CAS No.:** 2196-14-7  
**Molecular Formula:** C₁₅H₁₀O₄  
**Molecular Weight:** 254.24  
**Target:** CCR; NF-κB  
**Pathway:** GPCR/G Protein; Immunology/Inflammation; NF-κB  
**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 : ≥ 250 mg/mL (983.32 mM)  
* "≥" means soluble, but saturation unknown.  

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass Concentration</th>
<th>Solvent</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td></td>
<td>3.9333 mL</td>
<td>19.6665 mL</td>
<td>39.3329 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td></td>
<td>0.7867 mL</td>
<td>3.9333 mL</td>
<td>7.8666 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td></td>
<td>0.3933 mL</td>
<td>1.9666 mL</td>
<td>3.9333 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: ≥ 2.17 mg/mL (8.54 mM); Clear solution  
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.17 mg/mL (8.54 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
7,4'-Dihydroxyflavone (7,4'-DHF) is a flavonoid isolated from Glycyrrhiza uralensis, the eotaxon/CCL11 inhibitor, has the ability to consistently suppress eotaxin production and prevent dexamethasone (Dex)-paradoxical adverse effects on eotaxin production[1]. 7,4'-Dihydroxyflavone (7,4'-DHF) inhibits MUC5AC gene expression, mucus production and secretion via regulation of NF-κB, STAT6 and HDAC2.7,4'-Dihydroxyflavone (7,4'-DHF) decreases phorbol 12-myristate 13-acetate (PMA) stimulated NCI-H292 human airway epithelial cell MUC5AC gene expression and mucus production with IC₅₀ value of 1.4 µM[1].

**IC₅₀ & Target**  
IC₅₀: 1.4 µM (NCI-H292 human airway epithelial cell) (7,4'-Dihydroxyflavone)[2]
REFERENCES
