Paeoniflorin

Cat. No.: HY-N0293
CAS No.: 23180-57-6
Molecular Formula: C₂₃H₂₈O₁₁
Molecular Weight: 480.46
Target: HIF/HIF Prolyl-Hydroxylase
Pathway: Metabolic Enzyme/Protease
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 : ≥ 27 mg/mL (56.20 mM)
* “≥” means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Solvent Mass 1 mg</th>
<th>Solvent Mass 5 mg</th>
<th>Solvent Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.0813 mL</td>
<td>10.4067 mL</td>
<td>20.8134 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4163 mL</td>
<td>2.0813 mL</td>
<td>4.1627 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2081 mL</td>
<td>1.0407 mL</td>
<td>2.0813 mL</td>
</tr>
</tbody>
</table>

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

BIOLOGICAL ACTIVITY

Description

Paeoniflorin is a herbal constituent extracted from the root of Paeonia albiflora Pall. Target: Others Paeoniflorin (PF) is the principal bioactive component of Radix Paeoniae alba, which is widely used in Traditional Chinese Medicine for the treatment of neurodegenerative disorders such as Parkinson’s disease (PD) [1]. Paeoniflorin, a compound found in white peony that inhibited the production of testosterone and promoted the activity of aromatase, which converts testosterone into estrogen [2]. Treatment of cells with paeoniflorin but not glycyrrhizin resulted in enhanced phosphorylation and acquisition of the deoxyribonucleic acid-binding ability of heat shock transcription factor 1 (HSF1), as well as the formation of characteristic HSF1 granules in the nucleus, suggesting that the induction of HSPs by paeoniflorin is mediated by the activation of HSF1. Also, thermotolerance was induced by treatment with paeoniflorin but not glycyrrhizin. Paeoniflorin had no toxic effect at concentrations as high as 80 microg/mL (166.4 microM). To our knowledge, this is the first report on the induction of HSPs by herbal medicines [3].
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REFERENCES


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Tel: 609-228-6898       Fax: 609-228-5909       E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA