Proteins



Apigenin-7-glucuronide

Cat. No.: HY-N1454 CAS No.: 29741-09-1 Molecular Formula: $C_{21}H_{18}O_{11}$ Molecular Weight: 446.36 Target: MMP

Pathway: Metabolic Enzyme/Protease Storage: -20°C Powder

3 years 2 years -80°C In solvent

6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 250 mg/mL (560.09 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|------------|------------|
| | 1 mM | 2.2403 mL | 11.2017 mL | 22.4034 mL |
| | 5 mM | 0.4481 mL | 2.2403 mL | 4.4807 mL |
| | 10 mM | 0.2240 mL | 1.1202 mL | 2.2403 mL |

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: ≥ 2.17 mg/mL (4.86 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.66 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Apigenin-7-glucuronide could inhibit Matrix Metalloproteinases (MMP) activities, with IC₅₀s of 12.87, 22.39, 17.52, 0.27 µM for MMP-3, MMP-8, MMP-9, MMP-13, respectively.

IC₅₀ & Target MMP-3 MMP-8 MMP-9 MMP13 $12.87 \, \mu M \, (IC_{50})$ 22.39 µM (IC₅₀) $17.52~\mu\text{M}~(\text{IC}_{50})$ $0.27 \, \mu M \, (IC_{50})$

In Vitro Apigenin-7-Oglucuronide could inhibit Matrix Metalloproteinases (MMP) activities, with IC_{50} s of 12.87, 22.39, 17.52, 0.27 μ M for MMP-3, MMP-8, MMP-13, respectively $^{[1]}$. Scutellarin A also inhibits the migrated capacity of ACHN and 786-O cells in a dose-dependent manner. It is also revealed that after treatment with Scutellarin A (30, 60, and 90 μ M) for 24 h, the apoptosis rates in ACHN and 786-O cells are remarkably enhanced dose-dependently when compared to the control groups $^{[2]}$.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

• Food Chem Toxicol. 2020 Dec;146:111843.

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REFERENCES

[1]. Crascì L, et al. Correlating In Vitro Target-Oriented Screening and Docking: Inhibition of Matrix Metalloproteinases Activities by Flavonoids. Planta Med. 2017 Jul;83(11):901-911.

[2]. Deng W, et al. Scutellarin inhibits human renal cancer cell proliferation and migration via upregulation of PTEN. Biomed Pharmacother. 2018 Nov;107:1505-1513.

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

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