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- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Chrysosplenol D

Cat. No.: HY-N6007

CAS No.: 14965-20-9

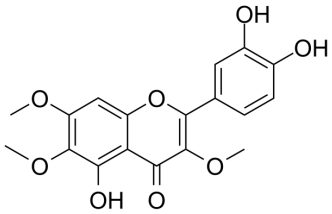
Molecular Formula: $C_{18}H_{16}O_8$

Molecular Weight: 360.31

Target: Apoptosis

Pathway: Apoptosis

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (138.77 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7754 mL	13.8769 mL	27.7539 mL
	5 mM	0.5551 mL	2.7754 mL	5.5508 mL
	10 mM	0.2775 mL	1.3877 mL	2.7754 mL

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: ≥ 2.5 mg/mL (6.94 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Chrysosplenol D is a methoxy flavonoid that induces ERK1/2-mediated apoptosis in triple negative human breast cancer cells. Chrysosplenol D also exhibits anti-inflammatory and moderate antitrypanosomal activities[1][2][3][4].

In Vitro

Chrysosplenol D inhibits the cell viability of CaCo2 cells, with IC_{50} of 63.48 μM[1].
Chrysosplenol D (1-100 μM; 48 h) selectively inhibits the viability of the TNBC cell lines, MDA-MB-231, CAL-51, CAL-148, as well as MCF7, A549, MIA PaCa-2, and PC-3[2].
Chrysosplenol D (1-10 μM; 48 h) induces cell cycle aberrations with accumulation of cells in the S-phase and partially in the G_2/M-phase of the cell cycle[2].
Chrysosplenol D (1-10 μM; 48 h) induce apoptosis in breast cancer cells[2].
Chrysosplenol D shows moderate antitrypanosomal activity, with IC_{50} of 47.27 μM for T.b. brucei[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	Chrysosplenol D (30 μM; 3 d) inhibits MDA-MB-231 tumor growth on chick chorioallantoic membranes[2]. Chrysosplenol D (0.07-0.28 mmol/kg) protects against LPS-induced systemic inflammatory response syndrome (SIRS) in mice[4]. Chrysosplenol D (1-1.5 μmol/cm^2) inhibits croton oil-induced ear edema in mice[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Habib ES, et, al. Anti-inflammatory effect of methoxyflavonoids from Chiliadenus montanus (Jasonia Montana) growing in Egypt. Nat Prod Res. 2020 Aug 4;1-5.

[2]. Lang SJ, et, al. Chrysosplenol d, a Flavonol from Artemisia annua, Induces ERK1/2-Mediated Apoptosis in Triple Negative Human Breast Cancer Cells. Int J Mol Sci. 2020 Jun 8;21(11):4090.

[3]. Skaf J, et, al. Improving anti-trypanosomal activity of alkamides isolated from Achillea fragrantissima. Fitoterapia. 2018 Mar;125:191-198.

[4]. Li YJ, et, al. Flavonoids casticin and chrysosplenol D from Artemisia annua L. inhibit inflammation in vitro and in vivo. Toxicol Appl Pharmacol. 2015 Aug 1;286(3):151-8.

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