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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Dehydroglyasperin C

Cat. No.: HY-N7335

CAS No.: 199331-35-6

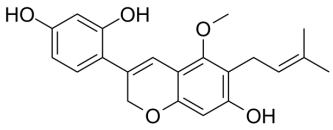
Molecular Formula: $C_{21}H_{22}O_5$

Molecular Weight: 354.4

Target: Others

Pathway: Others

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (282.17 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8217 mL	14.1084 mL	28.2167 mL
	5 mM	0.5643 mL	2.8217 mL	5.6433 mL
	10 mM	0.2822 mL	1.4108 mL	2.8217 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 (7.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.05 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dehydroglyasperin C, a isoflavone, is a potent NAD(P)H:oxidoquinone reductase (NQO1) and phase 2 enzyme inducer. Dehydroglyasperin C has antioxidant, neuroprotective, cancer chemopreventive, and anti-inflammatory activities[1][2][3].

In Vitro

Dehydroglyasperin C (0.1-1 μM; 24 h) blocks the PDGF-induced progression through the G0/G1 to S phase of the cell cycle, and down-regulates the expression of CDK; 2, cyclin E, CDK4 and cyclin D1. Dehydroglyasperin C significantly attenuates PDGF-stimulated phosphorylation of PDGF receptor-β, phospholipase C-γ1, AKT and extracellular-regulated kinase 1/2, and DGC inhibits cell migration and the dissociation of actin filaments by PDGF[1].
Dehydroglyasperin C (0.1-1 μM; 24 h) treatment significantly decreases PDGF-induced cell number and DNA synthesis in a dose-dependent manner without any cytotoxicity in human aortic smooth muscle cells (HASMC)[1].

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

Cell Cycle Analysis[1]

Cell Line:	Human aortic smooth muscle cells (HASMC)
Concentration:	0.1 μM, 0.5 μM, 1 μM
Incubation Time:	24 hours
Result:	Blocked the PDGF-induced progression through the G0/G1 to S phase of the cell cycle.

Western Blot Analysis[1]

Cell Line:	Human aortic smooth muscle cells (HASMC)
Concentration:	0.1 μM, 0.5 μM, 1 μM
Incubation Time:	24 hours
Result:	Down-regulated the expression of CDK; 2, cyclin E, CDK4 and cyclin D1.

In Vivo

In ICR mice, Dehydroglyasperin C (5 mg/kg; once) combined with CCl4 shows reduced lipid droplet formation in liver tissue, as assessed by histological examination. Further, DGC demonstrated a slight protective effect against centrilobular injury caused by CCl4 injection, perhaps through suppression of CYP2E1 expression[4].

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

REFERENCES

[1]. Hyo Jung Kim, et al. Dehydroglyasperin C, a component of liquorice, attenuates proliferation and migration induced by platelet-derived growth factor in human arterial smooth muscle cells. Br J Nutr. 2013 Aug 28;110(3):391-400.

[2]. Ji Hoon Lee, et al. Dehydroglyasperin C suppresses TPA-induced cell transformation through direct inhibition of MKK4 and PI3K. Mol Carcinog. 2016 May;55(5):552-62.

[3]. Ji Yeon Seo, et al. Dehydroglyasperin C isolated from licorice caused Nrf2-mediated induction of detoxifying enzymes. J Agric Food Chem. 2010 Feb 10;58(3):1603-8.

[4]. Seo, J.Y, et al. Protective effects of dehydroglyasperin c against carbon tetrachloride-induced liver damage in mice. Food Sci Biotechnol 23, 547–553 (2014).

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