Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Echinacoside

Catalog No: tcsc3400

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
82854-37-3

Formula:
$C_{35}H_{46}O_{20}$

Pathway:
Others

Target:
Others

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
786.73

Product Description

Echinacoside is a natural polyphenolic compound, has various kinds of pharmacological activities, such as antioxidative, anti-inflammatory, neuroprotective, hepatoprotective, nitric oxide radical-scavenging and vasodilative ones.

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IC50 value:

Target:

in vitro: Echinacoside(ECH) dose dependently inhibited HEWL aggregation, and this inhibition occurred in different fiber-forming stages. ECH could also scavenge the DPPH and OH free radicals in a concentration-dependent manner. ECH could increase viability of rat pheochromocytoma PC12 cells injured by Aβ and suppress the increase in intracellular reactive oxygen species (ROS) triggered by Aβ [1]. Transient treatment with echinacoside inhibits cytochrome c release and caspase-3 activation caused by ensuing rotenone exposure via activating Trk-extracellular signal-regulated kinase (ERK) pathway in neuronal cells [2]. ECH caused a significant increase in cell proliferation, ALP activity, COL I contents, OCN levels and an enhancement of mineralization in osteoblasts at the concentration range from 0.01 to 10nmol·L(-1) (p
in vivo: In OVX rats, the increases of body weight, serum hydroxyproline (HOP) levels, and the decreases of uterus wet weight and BMD were significantly reversed by ECH treatment [3]. Echinacoside (60 mg/kg) was given intraperitoneally to mice at 1 h prior to GalN/LPS exposure. Pretreatment with echinacoside remarkably improved the survival rate of GalN/LPS-treated mice and attenuated acute hepatotoxicity, as demonstrated by decreased ALT levels and improved histological signs. Echinacoside shows both anti-apoptotic and anti-inflammatory properties, characterized by a substantial inhibition of hepatocyte apoptosis and a significant reduction in the inflammatory markers, including myeloperoxidase, extracellular nucleosomes, high-mobility group box 1, and inflammatory cytokines in the plasma of mice, which may be important mechanisms related to its protective effect [5].