

# Calycosin-7-O-β-D-glucoside

Catalog No: tcsc3716



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

20633-67-4

**Formula:**

$C_{22}H_{22}O_{10}$

**Pathway:**

Others

**Target:**

Others

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 32$  mg/mL (71.68 mM)

**Observed Molecular Weight:**

446.4

## Product Description

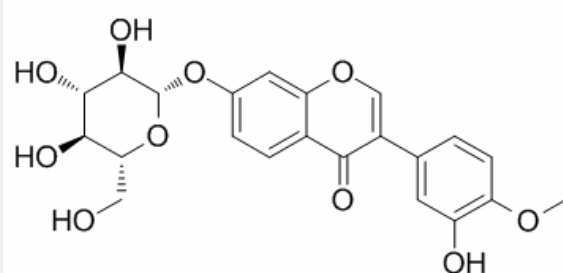
Calycosin-7-O-β-D-glucoside, a melanin biosynthesis inhibitor, is isolated from the methanol extract of astragalus.

IC50 value: 68 μM in inhibition of Tyrosinase

Target:

In vitro: Calycosin-7-O- $\beta$ -D-glucoside showed a melanin biosynthesis inhibition zone in a culture plate of *Streptomyces bikiniensis*. Furthermore, 75.78  $\mu$ M of calycosin-7-O- $\beta$ -D-glucoside dramatically decreased 50% of the melanin content on Melan-a cells without any apparent cytotoxicity [1]. Calycosin-7-O- $\beta$ -D-glucoside was revealed to scavenge NO, inhibit the activities of MMP-2 and MMP-9, and attenuate cell death in the in vitro cultured brain microvascular endothelial cells under OGD condition.

In vivo: Calycosin-7-O- $\beta$ -D-glucoside treatment significantly reduced infarct volume, histological damage and blood-brain barrier permeability in the in vivo MCAO ischemia-reperfusion rat model [2]. To reveal its physiological functions under stress, seedlings with different isoflavonoid levels were established using a phenylalanine ammonia lyase (PAL) enzyme inhibitor, L- $\alpha$ -aminooxy- $\beta$ -phenylpropionic acid (AOPP). The results showed that the significant promotion of antioxidant capacity in this species might be associated with the remarkable accumulation of Calycosin-7-O- $\beta$ -D-glucoside after cold pretreatment. The results provided the first evidence that a type of isoflavonoid, Calycosin-7-O- $\beta$ -D-glucoside, might play a very important role against freezing stress in vivo [3].



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