

1,3-Dicaffeoylquinic acid

Catalog No: tcsc6268

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Specifications

CAS No:

19870-46-3

Formula:

C₂₅H₂₄O₁₂

Pathway: PI3K/Akt/mTOR;PI3K/Akt/mTOR

Target:

PI3K;Akt

Purity / Grade:

Solubility: DMSO : \geq 23 mg/mL (44.53 mM)

Alternative Names:

1,3-O-Dicaffeoylquinic acid;1,5-Dicaffeoylquinic acid

Observed Molecular Weight:

516.45

Product Description

Copyright 2021 Taiclone Biotech Corp.



1,3-Dicaffeoylquinic acid is a caffeoylquinic acid derivative, and activates **PI3K/Akt**.

In Vitro: 1,3-Dicaffeoylquinic acid shows increased neuronal cell viability against A β (42) toxicity in a concentration-dependent manner in neurons. 1,3-Dicaffeoylquinic acid activates both phosphoinositide 3-kinase (PI3K)/Akt and extracellular regulated protein kinase 1/2 (Erk1/2) with stimulating their upstream tyrosine kinase A (Trk A). 1,3-Dicaffeoylquinic acid\'s anti-apoptotic potential is related to the enhanced inactivating phosphorylation of glycogen synthase kinase 3 β (GSK3 β) and the modulation of expression of apoptosis-related protein Bcl-2/Bax^[2]. 1,3-Dicaffeoylquinic acid (10 μ M, 20 μ M, 50 μ M, and 100 μ M) significantly increases cell viability before OGD/reperfusion, and prevents the depletion of GSH under OGD/reperfusion insult. 1,3-Dicaffeoylquinic acid induces nuclear translocation of Nrf2 in OGD/reperfusion treated astrocytes, and induces increased GCL activity, and the effect is lost in Nrf2 siRNA-transfected cells^[3].

In Vivo: 1,3-Dicaffeoylquinic acid (32.0 mg/kg, p.o.) and 1-O-ABL are absorbed very quickly in Wistar rats. The maximum plasma concentrations for 1,3-Dicaffeoylquinic acid and 1-O-ABL are 44.5 \pm 7.1 and 19.1 \pm 6.9 ng/mL, respectively^[1].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!

Copyright 2021 Taiclone Biotech Corp.