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

Artemisinin

Catalog No: tcsc1794

Available Sizes

Size: 200mg

Size: 500mg

Specifications

CAS No:
63968-64-9

Formula:
$C_{15}H_{22}O_5$

Pathway:
Anti-infection;Anti-infection

Target:
HCV;Parasite

Purity / Grade:
>98%

Solubility:
DMSO : 50 mg/mL (177.10 mM; Need ultrasonic); H2O :

Alternative Names:
Qinghaosu;NSC 369397

Observed Molecular Weight:
282.33

Product Description

Artemisinin, a natural product that is widely used as an anti-malarial drug, is an inhibitor of **HCV** subgenomic replicon replication.

In Vitro:

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Artemisinin (3.125-100 μM) concentration-dependently suppresses Aβ25-35 induced cytotoxicity in PC12 cells. Artemisinin (25 μM) suppresses Aβ25-35-induced LDH release, apoptosis and ROS production, attenuates Aβ-induced mitochondrial membrane potential loss and caspase 3/7 activity increase, and stimulates the phosphorylation of ERK1/2 in a time- and concentration-dependent manner in PC12 cell. ERK 1/2 pathway mediates the protect effects of artemisinin in PC12 cells[1]. Artemisinin shows cytotoxic activity in MCF-7/Dox cell line with IC_{50} of 3.7±0.4 μg/mL after 24 h treatment. Besides, Artemisinin treatment of MCF-7 cells, sensitive and resistant to Dox and DDP, causes a decrease in expression of proteins such as LF, FTH1, and HEP. Artemisinin activates p38 MAPK-kinase cascade regardless of the oxidative stress due to inhibition of VEGF expression and cell migration[2]. Artemisinin (50, 100 or 200 mg) significantly inhibits isoflurane-induced hippocampal neuronal loss, decreases caspase-3-positive cell counts and also cleaves caspase-3 expression, and modulates the expression of apoptosis pathway proteins. Artemisinin modulates JNK/ERK 1/2 signalling and histone acetylation[3]. Artemisinin inhibits HCV replication in a dose-dependent manner with EC_{50} value of 167±38 μM. Artemisinin and its most potent analogues partially inhibit the in vitro replication of HCV by induction of reactive oxygen species (ROS)[4]. Artemisinin significantly inhibits VSMC proliferation in a dose-dependent manner. Artemisinin (1 mM) for 72 h significantly reduces the expression of proliferating cell nuclear antigen messenger RNA[5].

In Vivo: Artemisinin (50, 100 or 200 mg/kg b.wt/day, p.o.) prevents isoflurane-induced working memory impairments as observed in T-maze test. Artemisinin enhances spatial navigation and memory of rats exposed to isoflurane. Artemisinin-treated rats exhibit markedly better performance in comparison with isoflurane-alone-exposed rats[3].