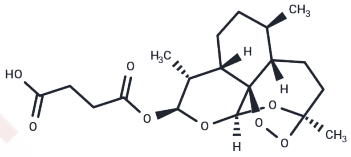
Data Sheet (Cat.No.T0433)

TargetMol

Artesunate

Chemical Properties



CAS No. : 88495-63-0

Formula: C19H28O8

Molecular Weight: 384.42

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Artesunate (WR-256283) is part of the artemisinin group of drugs that treat malaria. It is a semi-synthetic derivative of artemisinin that is water-soluble and may therefore be given by injection. It is on the World Health Organization's List of Essential Medicines.
Targets(IC50)	Ferroptosis,STAT,Parasite,Virus Protease
In vitro	ART could alter the biomechanical properties of the glioma cells to inhibit cell proliferation, migration and invasion [2]. The ART significantly suppresses the cell proliferation, induces the apoptosis and promoted cell cycle arrest at G0/G1 phase in SKM-1 cells. The mechanisms of ART anti-MDS is associated with the increase of intracellular calciumion concentration and ROS levels. In addition, the pro-apoptotic activity of ART may be involved in the regulation of BCL-2 /BAX ratio and the expressions of P-bad and survivin[3]. ART treatment demethylates CDH1, which, in turn recovers the E-cadherin activation in SKM-1 cells[1].
In vivo	Artesunate is a medication used to treat malaria. Artesunate can induce radiosensitivity of HeLa cells in vivo using Xenograft model of nude mice[5]. Artesunate had a relatively high immunosuppressive activity with low toxicity, and could inhibit T lymphocyte proliferation induced by mitogen and alloantigen[6].
Cell Research	Growth inhibition assay: The SKM-1 cells (1×105/mL) are firstly seeded in 96-well plates. Artesunate is diluted in 0.1% dimethyl sulfoxide (DMSO) producing 0, 12.5, 25, 50μg/mL concentrations and added to the SKM-1 cells with 100 μl per well. A negative control is treated with 0.1% DMSO. At 0, 24, 48, and 72 hours, same amount of MTT solution is added into each well and cultured for extra 4 hours. MTT treated cells are fixed with 150 μL DMSO for 30 min at room temperature and then determined with Evolution 201 and 220 UV-Vis spectrophotometer system at 540 nm. (Only for Reference)

Solubility Information

Solubility	Ethanol: 9 mg/mL (23.41 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 55 mg/mL (143.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6013 mL	13.0066 mL	26.0132 mL
5 mM	0.5203 mL	2.6013 mL	5.2026 mL
10 mM	0.2601 mL	1.3007 mL	2.6013 mL
50 mM	0.052 mL	0.2601 mL	0.5203 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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