Sulfosuccinimidyl oleate sodium [1212012-37-7]

#Cat: NB-64-04567-1mg Size: 1mg
#Cat: NB-64-04567-5mg Size: 5mg
#Cat: NB-64-04567-10mg Size: 10mg
#Cat: NB-64-04567-25mg Size: 25mg
#Cat: NB-64-04567-50mg Size: 50mg
#Cat: NB-64-04567-100mg Size: 100mg
#Cat: NB-64-04567-500mg Size: 500mg
#Cat: NB-64-04567-200mg Size: 200mg

Chemical Properties

Cas No: 1212012-37-7
Formula: $C_{22}H_{36}NNaO_7S$
Molecular weight: 481.58
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Sulfosuccinimidyl oleate sodium is a long-chain fatty acid that inhibits fatty acid transport into cells and is a potent and irreversible inhibitor of the mitochondrial respiratory chain and has anti-inflammatory properties without causing cytotoxic effects.
Targets(IC_{50})	Others
In vitro	**Methods:** BV2 cells were treated with Sulfosuccinimidyl oleate sodium (50μM) and exposed to 100 ng/ml LPS and 5 ng/ml IFNγ. The mRNA expression levels of IL-6, NOS2, Nrf2 and HO-1 were detected by qRT-PCR; WB detects the expression of NOS_2, COX-2, HO-1, p-p38, t-p38 and β-actin in cells. **Results:** Combined treatment with Sulfosuccinimidyl oleate sodium blocked the increase in the expression levels of IL-6 and NOS_2; co-treatment with SSO allowed LPS + IFNγ to reduce the Nrf2 expression level back to the basal level; combined treatment with Sulfosuccinimidyl oleate sodium significantly reduced the expression level of Nrf2. Expression of NOS_2 and COX-2 in BV2 cells induced by LPS + IFNγ; Sulfosuccinimidyl oleate sodium alone increased the basal protein level of HO-1, but did not change the level of HO-1 induced by LPS + IFNγ. [1]
In vivo	**Methods:** Sulfosuccinimidyl oleate sodium (50 mg/kg, oral) was treated in pMCAo mice and its therapeutic effect was tested; mice were analyzed for ischemia-induced cerebral microgliosis by immunohistochemical staining against Iba-1 3 days after stroke. **Results:** Sulfosuccinimidyl oleate sodium significantly reduced the size of cortical ischemic infarcts, and significantly upregulated microgliosis was detected in the periischemic area of sulfosuccinimidyl oleate sodium-treated mice 3 days after stroke. A significant decrease in the degree of Iba-1 immunoreactivity was observed in the periischemic area. [1]

Solubility Information

Solubility	DMSO: 70 mg/mL (145.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0765 mL	10.3825 mL	20.765 mL
5 mM	0.4153 mL	2.0765 mL	4.153 mL
10 mM	0.2076 mL	1.0382 mL	2.0765 mL
50 mM	0.0415 mL	0.2076 mL	0.4153 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

Lin H, Ma C, Zhuang X, et al.Sensing steroid hormone 17α-hydroxypregnenolone by GPR56 enables protection from ferroptosis-induced liver injury.Cell Metabolism.2024
Dhungana H,et al. Sulfosuccinimidyl oleate sodium is neuroprotective and alleviates stroke-induced neuroinflammation. J Neuroinflammation. 2017 Dec 4;14(1):237.
Drahota Z, et al. Succinimidyl oleate, established inhibitor of CD36/FAT translocase inhibits complex III of mitochondrial respiratory chain. Biochem Biophys Res Commun. 2010 Jan 15;391(3):1348-51.