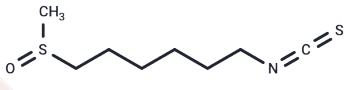
Data Sheet (Cat.No.T15474)

TargetMol

Hesperin

Chemical Properties



CAS No. : 4430-35-7

Formula: C8H15NOS2

Molecular Weight: 205.34

Appearance: no data available

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

Biological Description

Description	Hesperin (6-MSITC), a flavonoid isolated from orange peel, is a circadian decapping enzyme in plants, inhibiting lipid accumulation and production of reactive oxygen and nitrogen species in 3T3-L1 and RAW264.7 cells.
Targets(IC50)	ROS
In vitro	b>METHODS: HUVEC cells were stimulated with TNF-a or thrombin in the presence of Hesperin (0.03, 0.1, 0.3, 1 μg/ml, 4 hours). The effect of Hesperin on VWF release induced by TNF-a and thrombin was studied. **RESULTS**: Hesperin slightly increased TNF-a-induced TF activity, but at 1 lg/mL (4.88 μM), Hesperin reduced TNF-a- or thrombin-induced TF activity; Hesperin did not change the TF activity of unstimulated HUVECs; indicating that TF activity is inversely proportional to the concentration of Hesperin. [2]
In vivo	b>METHODS: Wild-type and Nrf2-deficient mice were fed the following diets for 12 weeks: 1) control diet, 2) high-fat diet (HFD), 3) HFD plus hesperin (10 mg/kg, ip, daily), 4) HFD for 6 weeks followed by HFD supplemented with iron for 6 weeks (HFD/iron), and 5) HFD/iron plus hesperin; to investigate whether hesperin could improve hepatic steatosis and iron accumulation. **RESULTS**: HFD increased hepatic triglycerides in both genotypes and Hesperi; hesperin suppressed the increase in hepatic triglycerides in wild-type mice but did not reduce triglycerides in Nrf2-deficient mice; hesperin did not block hepatic iron accumulation in either genotype. [1]

Solubility Information

Solubility	DMSO: 25 mg/mL (121.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.870 mL	24.3499 mL	48.6997 mL
5 mM	0.974 mL	4.870 mL	9.7399 mL
10 mM	0.487 mL	2.435 mL	4.870 mL
50 mM	0.0974 mL	0.487 mL	0.974 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

Tanaka Y, et al. 6-Methylsulfinylhexyl isothiocyanate prevents high-fat diet-induced fatty liver but fails to attenuate hepatic iron accumulation in mice. Clin Exp Pharmacol Physiol. 2016 Nov;43(11):1153-1156.
Okamoto T, et al. 6-Methylsulfinylhexyl isothiocyanate modulates endothelial cell function and suppresses leukocyte adhesion. J Nat Med. 2014 Jan;68(1):144-53.