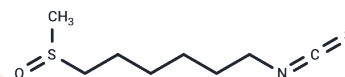


## Hesperin

## Chemical Properties

|                   |                                                                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAS No. :         | 4430-35-7                                                                                                                                                      |
| Formula:          | C <sub>8</sub> H <sub>15</sub> NOS <sub>2</sub>                                                                                                                |
| Molecular Weight: | 205.34                                                                                                                                                         |
| Storage:          | Store at low temperature<br>Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br><small>Actual storage temperature shall be subject to the COA.</small> |



## 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) | Nrf2,ROS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| In vitro      | <p>b&gt;METHODS: HUVEC cells were stimulated with TNF-<math>\alpha</math> or thrombin in the presence of Hesperin (0.03, 0.1, 0.3, 1 <math>\mu</math>g/ml, 4 hours). The effect of Hesperin on VWF release induced by TNF-<math>\alpha</math> and thrombin was studied.</p> <p><b>RESULTS:</b> Hesperin slightly increased TNF-<math>\alpha</math>-induced TF activity, but at 1 <math>\mu</math>g/mL (4.88 <math>\mu</math>M), Hesperin reduced TNF-<math>\alpha</math>- 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]</p>                              |
| In vivo       | <p>b&gt;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.</p> <p><b>RESULTS:</b> HFD increased hepatic triglycerides in both genotypes and Hesperin; 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]</p> |

## Solubility Information

|            |                                                                                                                          |
|------------|--------------------------------------------------------------------------------------------------------------------------|
| Solubility | DMSO: 25 mg/mL (121.75 mM),Sonication is recommended.<br>(< 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481