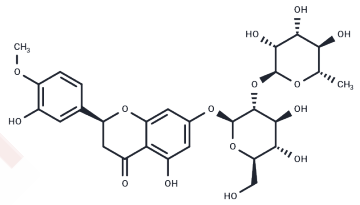
Data Sheet (Cat.No.T2737)

TargetMol

Neohesperidin

Chemical Properties



CAS No. : 13241-33-3

Formula: C28H34O15

Molecular Weight: 610.56

Appearance: no data available

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

Biological Description

Description	Neohesperidin (NSC-31048) with antioxidant and neuroprotective properties. Unlike other citrus flavanones, it does not inhibit oral carcinogenesis in a rat model.
Targets(IC50)	Antioxidant
In vivo	Neohesperidin, administered at a dose of 50 mg/kg, significantly reduces the occurrence of HCl/ethanol-induced gastric lesions by 55.0%. In studies involving pylorus-ligated rats, this compound notably decreases both the volume of gastric secretion and gastric acid output, while simultaneously increasing gastric pH[1]. Additionally, neohesperidin treatment markedly improves glucose metabolism and insulin sensitivity in diabetic mice, evidenced by substantial reductions in fasting glucose, serum glucose, glycosylated serum protein (GSP), serum triglycerides, total cholesterol, and leptin levels, alongside a decrease in the liver index. It also enhances oral glucose tolerance and reduces insulin resistance in these mice[3].

Solubility Information

Solubility	DMSO: 50 mg/mL (81.89 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6378 mL	8.1892 mL	16.3784 mL
5 mM	0.3276 mL	1.6378 mL	3.2757 mL
10 mM	0.1638 mL	0.8189 mL	1.6378 mL
50 mM	0.0328 mL	0.1638 mL	0.3276 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

Lee JH, et al. Phytother Res, 2009, 23(12), 1748-1753.
Johnston K, et al. FEBS Lett, 2005, 579(7), 1653-1657.
Jia S, et al. Hypoglycemic and hypolipidemic effects of neohesperidin derived from Citrus aurantium L. in diabetic KK-A(y) mice. Food Funct. 2015 Mar;6(3):878-86.

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