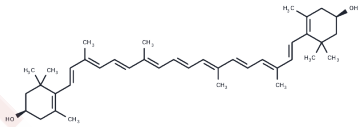
Data Sheet (Cat.No.TMS2180)

TargetMol

Zeaxanthin

Chemical Properties



CAS No. : 144-68-3

Formula: C40H56O2

Molecular Weight: 568.87

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Zeaxanthin is a dietary carotenoid that accumulates in the retina (particularly the macula) and has antioxidant activity that may improve obesity, prevent age-related macular degeneration, and protect against nonalcoholic steatohepatitis.
Targets(IC50)	Antioxidant,Endogenous Metabolite
In vitro	**METHODS**: Free fatty acid (FFA)-induced HepG2 cells were used as a cell model of NAFLD to study the role of Zeaxanthin in HepG2 cells. **RESULTS** Zeaxanthin exerts antioxidant and anti-inflammatory effects in FFA-induced HepG2 cells, can significantly reduce the production of reactive oxygen species (ROS) and iron overload, and improve mitochondrial dysfunction in FFA-induced HepG2 cells; Zeaxanthin can also down-regulate The expression of p53, regulating downstream targets such as GPX4, SLC7A11, SAT1 and ALOX15, helps reduce cellular lipid peroxidation. [2]

Solubility Information

Solubility	DMSO: Slightly soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7579 mL	8.7894 mL	17.5787 mL
5 mM	0.3516 mL	1.7579 mL	3.5157 mL
10 mM	0.1758 mL	0.8789 mL	1.7579 mL
50 mM	0.0352 mL	0.1758 mL	0.3516 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

Furlani BA,et al. Lutein and zeaxanthin toxicity with and without brilliant blue in rabbits. J Ocul Pharmacol Ther. 2014 Sep;30(7):559-66.

Liu H, et al. Zeaxanthin prevents ferroptosis by promoting mitochondrial function and inhibiting the p53 pathway in free fatty acid-induced HepG2 cells. Biochim Biophys Acta Mol Cell Biol Lipids. 2023 Apr;1868(4):159287.