

Chlorophyll b

Chemical Properties

CAS No. : 519-62-0

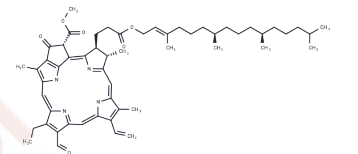
Formula: C₅₅H₇₀MgN₄O₆

Molecular Weight: 907.47

Keep away from direct sunlight

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Chlorophyll b is a tetrapyrrole natural pigment, which widely exists in plants and algae, and participates in the photosynthesis process as accessory pigments. Chlorophyll b, as a hydrogen donor, can improve the level of Glutathione and show certain antioxidant activity, which is used to study the mechanism of photosynthesis and related redox processes.
Targets(IC50)	Antioxidant
In vivo	Chlorophyll b (0.2-0.5 mg/kg; Gavage; Every day; 13 days) can alleviate DNA damage, chromosome instability and oxidative stress induced by Cisplatin in mice [2]. Chlorophyll b (0.5 mg/kg; Gavage; Daily; 13 days) combined with lutein showed anti-genotoxic and anti-mutagenic effects in mice, and could prevent GSH depletion of peripheral blood cells induced by Cisplatin [3].

Solubility Information

Solubility	Ethanol: 10 mg/mL (11.02 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.102 mL	5.5098 mL	11.0196 mL
5 mM	0.2204 mL	1.102 mL	2.2039 mL
10 mM	0.1102 mL	0.551 mL	1.102 mL
50 mM	0.022 mL	0.1102 mL	0.2204 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

- Xu H, et al. Chlorophyll b can serve as the major pigment in functional photosystem II complexes of cyanobacteria. *Proc Natl Acad Sci U S A*. 2001 Nov 20;98(24):14168-73
- Serpeloni JM, et al. An evaluation, using the comet assay and the micronucleus test, of the antigenotoxic effects of chlorophyll b in mice. *Mutat Res*. 2011 Oct 9;725(1-2):50-6.
- Serpeloni JM, et al. Effects of lutein and chlorophyll b on GSH depletion and DNA damage induced by cisplatin in vivo. *Hum Exp Toxicol*. 2013 Aug;32(8):828-36.

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