

γ -Tocotrienol

Chemical Properties

CAS No. : 14101-61-2

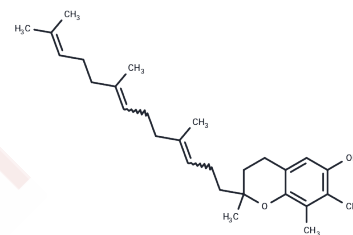
Formula: C₂₈H₄₂O₂

Molecular Weight: 410.63

Keep away from direct sunlight, Store at low temperature, Keep away from moisture

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	γ -Tocotrienol (Plastochromanol) is one of the four types of tocotrienol, a type of vitamin E. It is also a radioprotector, antioxidant. It shows antitumor and antihypertensive effects in vivo.
Targets(IC50)	Others, NF- κ B, Endogenous Metabolite

Solubility Information

Solubility	DMSO: 100 mg/mL (243.53 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (9.74 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4353 mL	12.1764 mL	24.3528 mL
5 mM	0.4871 mL	2.4353 mL	4.8706 mL
10 mM	0.2435 mL	1.2176 mL	2.4353 mL
50 mM	0.0487 mL	0.2435 mL	0.4871 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

Hofer M, Hoferová Z, Falk M. Pharmacological Modulation of Radiation Damage. Does It Exist a Chance for Other Substances than Hematopoietic Growth Factors and Cytokines? *Int J Mol Sci.* 2017 Jun 28;18(7). pii: E1385. doi: 10.3390/ijms18071385. Review. PubMed PMID: 28657605; PubMed Central PMCID: PMC5535878.

Singh VK, Hauer-Jensen M. γ -Tocotrienol as a Promising Countermeasure for Acute Radiation Syndrome: Current Status. *Int J Mol Sci.* 2016 May 3;17(5). pii: E663. doi: 10.3390/ijms17050663. Review. PubMed PMID: 27153057; PubMed Central PMCID: PMC4881489.

Zhao L, Fang X, Marshall MR, Chung S. Regulation of Obesity and Metabolic Complications by Gamma and Delta Tocotrienols. *Molecules.* 2016 Mar 11;21(3):344. doi: 10.3390/molecules21030344. Review. PubMed PMID: 26978344.

Davis-Yadley AH, Malafa MP. Vitamins in pancreatic cancer: a review of underlying mechanisms and future applications. *Adv Nutr.* 2015 Nov 13;6(6):774-802. doi: 10.3945/an.115.009456. Print 2015 Nov. Review. PubMed PMID: 26567201; PubMed Central PMCID: PMC4642423.

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