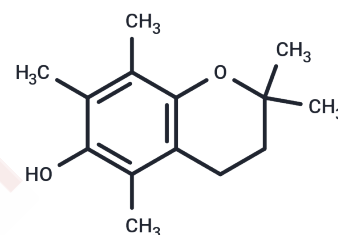


## 2,2,5,7,8-Pentamethyl-6-Chromanol

### Chemical Properties

CAS No. :	950-99-2
Formula:	C <sub>14</sub> H <sub>20</sub> O <sub>2</sub>
Molecular Weight:	220.31
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



### Biological Description

Description	2,2,5,7,8-Pentamethyl-6-Chromanol (PMC) is the antioxidant component of vitamin E (α-tocopherol) and exhibits significant androgen receptor (AR) signaling modulation and anti-cancer activity against prostate cancer cell lines.
Targets(IC50)	NF-κB, Androgen Receptor

### Solubility Information

Solubility	DMSO: 250 mg/mL (1134.76 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: 5 mg/mL (22.7 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	4.5391 mL	22.6953 mL	45.3906 mL
5 mM	0.9078 mL	4.5391 mL	9.0781 mL
10 mM	0.4539 mL	2.2695 mL	4.5391 mL
50 mM	0.0908 mL	0.4539 mL	0.9078 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

Kyriakopoulos CE, et al. A multicenter phase 1/2a dose-escalation study of the antioxidant moiety of vitamin E 2,2,5,7,8-pentamethyl-6-chromanol (APC-100) in men with advanced prostate cancer. Invest New Drugs. 2016 Apr;34(2):225-30.

Bi G, Liang J, Shan G, et al. Retinol saturase mediates retinoid metabolism to impair a ferroptosis defense system in cancer cells. Cancer Research. 2023: CAN-22-3977.

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