

**(±)-γ-Tocopherol****Chemical Properties**

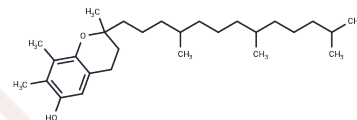
CAS No. : 7616-22-0

Formula: C<sub>28</sub>H<sub>48</sub>O<sub>2</sub>

Molecular Weight: 416.68

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                | (±)-γ-Tocopherol is an endogenous metabolite and form of vitamin E with antioxidant and anti-inflammatory properties that reduces prostaglandin (PGE <sub>2</sub> ) synthesis induced by LPS and IL-1β. |
| Targets(IC <sub>50</sub> ) | Endogenous Metabolite, Immunology/Inflammation related, Prostaglandin Receptor  |
| In vitro                   | (±)-γ-Tocopherol (10 μM) inhibits LPS-induced nitrite release and iNOS expression in RAW 264.7 cells, and reduces COX-2 activity in IL-1β-pretreated A549 cells [1].                                    |

**Preparing Stock Solutions**

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.3999 mL | 11.9996 mL | 23.9992 mL |
| 5 mM  | 0.480 mL  | 2.3999 mL  | 4.7998 mL  |
| 10 mM | 0.240 mL  | 1.200 mL   | 2.3999 mL  |
| 50 mM | 0.048 mL  | 0.240 mL   | 0.480 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**

Jiang Q, et al. gamma-tocopherol, the major form of vitamin E in the US diet, deserves more attention. Am J Clin Nutr. 2001;74(6):714-722.

Cooney RV, et al. Gamma-tocopherol detoxification of nitrogen dioxide: superiority to alpha-tocopherol. Proc Natl Acad Sci U S A. 1993;90(5):1771-1775.

Jiang Q, et al. gamma-tocopherol and its major metabolite, in contrast to alpha-tocopherol, inhibit cyclooxygenase activity in macrophages and epithelial cells. Proc Natl Acad Sci U S A. 2000;97(21):11494-11499.

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