

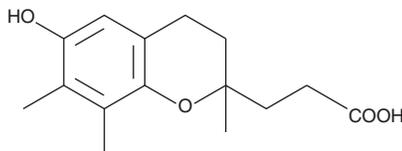
PRODUCT INFORMATION



γ-CEHC

Item No. 89630

CAS Registry No.: 178167-75-4
Formal Name: 3,4-dihydro-6-hydroxy-2,7,8-trimethyl-2H-1-benzopyran-2-propanoic acid
Synonyms: γ-Tocopherol Metabolite, GTM, 2,7,8-trimethyl-2-(β-Carboxy-Ethyl)-6-Hydroxychroman



MF: C₁₅H₂₀O₄
FW: 264.3
Purity: ≥98%
UV/Vis.: λ_{max}: 296 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

γ-CEHC is supplied as a crystalline solid. A stock solution may be made by dissolving the γ-CEHC in the solvent of choice, which should be purged with an inert gas. γ-CEHC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of γ-CEHC in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of γ-CEHC can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of γ-CEHC in PBS (pH 7.2) is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

γ-CEHC is a β-oxidized metabolite of dietary γ-tocopherol that functions as a natriuretic hormone.¹ It was initially purified and characterized from the urine of uremic patients, but it has since been found in urine from both control patients and those with congestive heart failure.² γ-CEHC is also anti-inflammatory, reducing 8-isoprostane and inflammatory eicosanoid synthesis in rat models.³

References

1. Christen, S., Woodall, A.A., Shigenaga, M.K., *et al.* γ-Tocopherol traps mutagenic electrophiles such as NO_x and complements α-tocopherol: Physiological implications. *Proc. Natl. Acad. Sci. USA* **94**, 3217-3222 (1997).
2. Wechter, W.J., Kantoci, D., Murray, E.D., Jr., *et al.* A new endogenous natriuretic factor: LLU-α. *Proc. Natl. Acad. Sci. USA* **93**, 6002-6007 (1996).
3. Jiang, Q., Elson-Schwab, I., Courtemanche, C., *et al.* γ-Tocopherol and its major metabolite, in contrast to α-tocopherol, inhibit cyclooxygenase activity in macrophages and epithelial cells. *Proc. Natl. Acad. Sci. USA* **97**, 11494-11499 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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