

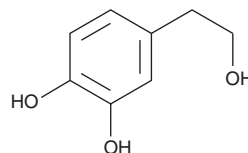
Product Information



3,4-Dihydroxyphenyl Ethanol

Catalog No. 70604

CAS Registry No.: 10597-60-1
Formal Name: 4-(2-hydroxyethyl)-1,2-benzenediol
MF: C₈H₁₀O₃
FW: 154.2
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that 3,4-Dihydroxyphenyl ethanol (DPE) be stored as supplied at -20°C. It should be stable for at least one year.

DPE is supplied as a solution in ethanol. To change the solvent, evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of DPE in these solvents is approximately 50 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 solutions of DPE can be prepared by evaporating the ethanol and dissolving the neat oil in the buffer of choice. The solubility of DPE is approximately 15 mg/ml in buffers of ionic strength ≥ 0.1 M and pH ≥ 7.2. Use the aqueous solution within 12 hours.

DPE is a phenolic component of olive oil that inhibits both 12- and 5-lipoxygenase. The IC₅₀ values for the inhibition of rat platelet 12-LO and rat neutrophil 5-LO are 4.2 and 13μM, respectively.¹ It does not inhibit, and may actually enhance, COX activity.¹ DPE also protects LDL from both biological and chemical oxidation, suggesting a potential mechanism for the protective effects of olive oil against atherosclerosis.

Reference

1. Kohyama, N., Nagata, T., Fujimoto, S., *et al.* Inhibition of arachidonate lipoxygenase activities by 2-(3,4-dihydroxyphenyl) ethanol, a phenolic compound from Olives. *Biosci. Biotech. Biochem.* **61**, 347-350 (1997).

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

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