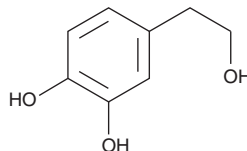


# PRODUCT INFORMATION

## 3,4-Dihydroxyphenyl ethanol

Item No. 70604

**CAS Registry No.:** 10597-60-1  
**Formal Name:** 4-(2-hydroxyethyl)-1,2-benzenediol  
**Synonyms:** Ba2774, DOPET, 3-Hydroxytyrosol  
**MF:** C<sub>8</sub>H<sub>10</sub>O<sub>3</sub>  
**FW:** 154.2  
**Purity:** ≥98%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Synthetic



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

### Laboratory Procedures

3,4-Dihydroxyphenyl ethanol is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 3,4-dihydroxyphenyl ethanol in these solvents is approximately 50 mg/ml.

3,4-Dihydroxyphenyl ethanol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 3,4-dihydroxyphenyl ethanol should be diluted with the aqueous buffer of choice. The solubility of 3,4-dihydroxyphenyl ethanol in PBS (pH 7.2) is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

3,4-Dihydroxyphenyl ethanol is a phenolic component of olive oil that inhibits both 12- and 5-lipoxygenase. The IC<sub>50</sub> values for the inhibition of rat platelet 12-LO and rat neutrophil 5-LO are 4.2 and 13μM, respectively. It does not inhibit, and may actually enhance, COX activity.<sup>1</sup> 3,4-Dihydroxyphenyl ethanol also protects LDL from both biological and chemical oxidation, suggesting a potential mechanism for the protective effects of olive oil against atherosclerosis.<sup>2</sup>

### References

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**(2), 347-350 (1997).
2. Grignaffini, P., Roma, P., Galli, C., *et al.* Protection of low-density lipoprotein from oxidation by 3,4-dihydroxyphenylethanol. *Lancet* **343**(8908), 1296-1297 (1994).

#### 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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