

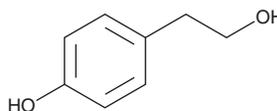
PRODUCT INFORMATION



Tyrosol

Item No. 27600

CAS Registry No.: 501-94-0
Formal Name: 4-hydroxy-benzeneethanol
Synonyms: NSC 59876, *p*-HPEA
MF: C₈H₁₀O₂
FW: 138.2
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 279 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Tyrosol is supplied as a solid. A stock solution may be made by dissolving the tyrosol in the solvent of choice, which should be purged with an inert gas. Tyrosol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of tyrosol in ethanol is approximately 5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

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 tyrosol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of tyrosol in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Tyrosol is a phenol that has been found in olives and olive oil and has diverse biological activities.¹⁻⁴ It is fungicidal against *H. capsulatum* and *C. posadasii* with minimum fungicidal concentration (MFC) values of 170-710 and 1,420 µg/ml, respectively.¹ Tyrosol (70-280 mg/kg) increases survival and pulmonary superoxide dismutase (SOD) activity and decreases pulmonary macrophage and neutrophil infiltration, edema, inflammation, and myeloperoxidase (MPO) activity in a mouse model of LPS-induced acute lung injury.² It reduces aqueous humor TNF-α, nitric oxide (NO), and prostaglandin E₂ (PGE₂; Item No. 14010) levels and cellular infiltration in a rat model of ocular endotoxin-induced uveitis (EIU).³ Tyrosol also decreases erythrocyte aggregation, increases the oxygen transport capacity index (OTCI), and abolishes cortical microvascular rarefaction in spontaneously hypertensive rats.⁴

References

1. Brilhante, R.S., Caetano, É.P., Lima, R.A., et al. *Braz. J. Microbiol.* **47(4)**, 917-924 (2016).
2. Wang, W.C., Xia, Y.M., Yang, B., et al. *Biol. Pharm. Bull.* **40(5)**, 583-593 (2017).
3. Sato, K., Mihara, Y., Kanai, K., et al. *J. Vet. Med. Sci.* **78(9)**, 1429-1438 (2016).
4. Plotnikov, M.B., Aliev, O.I., Sidekhmenova, A.V., et al. *Microvasc. Res.* **119**, 91-97 (2018).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/29/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM