

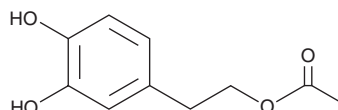
PRODUCT INFORMATION



Hydroxytyrosol Acetate

Item No. 41665

CAS Registry No.: 69039-02-7
Formal Name: 4-[2-(acetyloxy)ethyl]-1,2-benzenediol
Synonyms: HT-AC, HTy-Ac
MF: $C_{10}H_{12}O_4$
FW: 196.2
Purity: $\geq 98\%$
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

Hydroxytyrosol acetate is supplied as a solid. A stock solution may be made by dissolving the hydroxytyrosol acetate in the solvent of choice, which should be purged with an inert gas. Hydroxytyrosol acetate is soluble (≥ 10 mg/ml) in ethanol and DMSO.

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 hydroxytyrosol acetate can be prepared by directly dissolving the solid in aqueous buffers. Hydroxytyrosol acetate is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Hydroxytyrosol acetate is a polyphenol that has been found in *O. europaea* and has diverse biological activities.¹⁻⁴ It scavenges DPPH (Item No. 14805) radicals in a cell-free assay ($IC_{50} = 1.73 \mu\text{M}$).¹ Hydroxytyrosol acetate is active against *V. parahaemolyticus* (MIC = 39 $\mu\text{g/ml}$).² It inhibits LPS-induced increases in nitric oxide (NO), inducible nitric oxide synthase (iNOS), and COX-2 levels in isolated mouse peritoneal macrophages when used at concentrations of 50 or 100 μM .¹ Hydroxytyrosol acetate (1-100 μM) inhibits hypoxia- and reoxygenation-induced lactate dehydrogenase (LDH) release in isolated rat brain slices.³ Dietary administration of hydroxytyrosol acetate (0.05%) inhibits paw swelling, joint synovial hyperplasia, and cartilage erosion in a mouse model of collagen II-induced rheumatoid arthritis.⁴ It decreases serum levels of IgG1, IgG2a, matrix metalloproteinase-3 (MMP-3), and cartilage oligomeric matrix protein (COMP), as well as levels of TNF- α , IL-1 β , IFN- γ , IL-6, IL-17a, and prostaglandin E_2 (PGE $_2$; Item No. 14010) in hind paw joint homogenates, in the same model.

References

1. Aparicio-Soto, M., Sánchez-Fidalgo, S., González-Benjumea, A., et al. *J. Agric. Food Chem.* **63**(3), 836-846 (2015).
2. Wei, J., Wang, S., Pei, D., et al. *Nat. Prod. Res.* **32**(16), 1967-1970 (2018).
3. González-Correa, J.A., Navas, M.D., Lopez-Villodres, J.A., et al. *Neurosci. Lett.* **446**(2-3), 143-146 (2008).
4. Rosillo, M.A., Sánchez-Hidalgo, M., González-Benjumea, A., et al. *Mol. Nutr. Food Res.* **59**(12), 2537-2546 (2015).

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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