

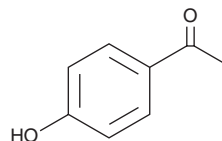
PRODUCT INFORMATION



4-Acetylphenol

Item No. 35636

CAS Registry No.: 99-93-4
Formal Name: 1-(4-hydroxyphenyl)-ethanone
Synonyms: 4-Hydroxyacetophenone, *p*-Hydroxyacetophenone, *para*-Hydroxyacetophenone, NSC 3698, Piceol
MF: C₈H₈O₂
FW: 136.2
Purity: ≥98%
UV/Vis.: λ_{max}: 220, 278 nm
Supplied as: A 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

4-Acetylphenol is supplied as a solid. A stock solution may be made by dissolving the 4-acetylphenol in the solvent of choice, which should be purged with an inert gas. 4-Acetylphenol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4-acetylphenol in DMSO is approximately 25 mg/ml and approximately 50 mg/ml in ethanol 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 4-acetylphenol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 4-acetylphenol in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

4-Acetylphenol is an acetylated phenol that has been found in *P. abies* and has diverse biological activities.¹⁻⁴ It is active against *C. cucumerinum*, a plant-pathogenic fungus, when used at concentrations of 0.5, 1, and 2 mg/ml.¹ 4-Acetylphenol (147.1 and 294.1 μM) decreases hepatitis B virus (HBV) particle secretion from Huh7 cells.² Its levels are increased in Norway spruce exhibiting dieback but not in healthy trees.³ Dietary administration of 4-acetylphenol, in combination with 3,4-hydroxy-acetophenone, reduces pupal survival and mass, as well as increases development time, in spruce budworms (*C. fumiferana*).⁴

References

1. Osswald, W.F., Ziebell, S., Schütz, W., *et al.* *p*-Hydroxyacetophenone a fungitoxic compound in spruce needles. *J. Plant Dis. Prot.* **94**(6), 572-577 (1987).
2. Huang, T.-J., Liu, S.-H., Kuo, Y.-C., *et al.* Antiviral activity of chemical compound isolated from *Artemisia morrisonensis* against hepatitis B virus *in vitro*. *Antiviral Res.* **101**, 97-104 (2014).
3. Hoque, E. Norway spruce die-back: Isolation, biological activity, measurement of concentration of *p*-hydroxy acetophenone and its O-glucoside (Picein) by gas chromatography. *Eur. J. For. Path.* **14**(6), 377-382 (1984).
4. Delvas, N., Bauge, É., Labbé, C., *et al.* Phenolic compounds that confer resistance to spruce budworm. *Entomol. Exp. Appl.* **141**(1), 35-44 (2011)

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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