

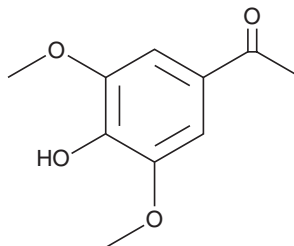
PRODUCT INFORMATION



Acetosyringone

Item No. 23224

CAS Registry No.: 2478-38-8
Formal Name: 1-(4-hydroxy-3,5-dimethoxyphenyl)-ethanone
Synonym: 3',5'-Dimethoxy-4'-hydroxyacetophenone
MF: C₁₀H₁₂O₄
FW: 196.2
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 299 nm
Supplied as: A crystalline 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

Acetosyringone is supplied as a crystalline solid. A stock solution may be made by dissolving the acetosyringone in the solvent of choice, which should be purged with an inert gas. Acetosyringone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of acetosyringone in ethanol is approximately 2 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 acetosyringone can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of acetosyringone in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Acetosyringone is a phenol secreted by wounded plant tissues.¹ It induces expression of virulence A genes and chemotaxis in *A. tumefaciens* strains that contain a tumor-inducing plasmid used to transfer genetic information to plant cells.^{1,2} Acetosyringone is widely used to increase efficacy of genetic transformation for the creation of genetically modified dicotyledonous and monocotyledonous plants.³

References

1. Shaw, C.H. Swimming against the tide: Chemotaxis in *Agrobacterium*. *BioEssays* **13**(1), 25-29 (1991).
2. Lee, Y.-W., Jin, S., Sim, W.-S., et al. The sensing of plant signal molecules by *Agrobacterium*: Genetic evidence for direct recognition of phenolic inducers by the VirA protein. *Gene* **179**(1), 83-88 (1996).
3. Srinivasan, R., and Gothandam, K.M. Synergistic action of D-Glucose and acetosyringone on *Agrobacterium* strains for efficient *Dunaliella* transformation. *PLoS One* **11**(6), e0158322 (2016).

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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