

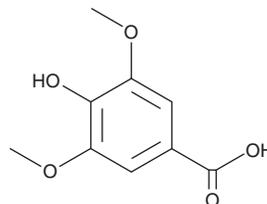
# PRODUCT INFORMATION



## Syringic Acid

Item No. 19196

**CAS Registry No.:** 530-57-4  
**Formal Name:** 4-hydroxy-3,5-dimethoxy-benzoic acid  
**Synonyms:** 3,5-dimethyl ether Gallic Acid,  
3,5-dimethoxy-4-hydroxy Benzoic Acid,  
NSC 2129  
**MF:** C<sub>9</sub>H<sub>10</sub>O<sub>5</sub>  
**FW:** 198.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 218, 274 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

Syringic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the syringic acid in the solvent of choice, which should be purged with an inert gas. Syringic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of syringic acid in these solvents is approximately 10, 25, and 16 mg/ml, respectively.

Syringic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, syringic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Syringic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Syringic acid is a naturally occurring O-methylated phenolic acid that can be enzymatically degraded by some bacteria as a source of methane or methanol.<sup>1</sup> It is also a component of phenolic extracts from various plants that have antioxidant and prooxidant activities.<sup>2</sup> Syringic acid has been shown to inhibit aldose reductase (IC<sub>50</sub> = 213 µg/ml), proteasome activity, and cancer cell proliferation.<sup>3,4</sup> Phenolic extracts containing syringic acid have been shown to inhibit α-amylase and α-glucosidase activities and reduce lipid peroxidation *in vitro*.<sup>5</sup>

### References

1. Hara, H., Masai, E., Katayama, Y., et al. *J. Bacteriol.* **182**(24), 6950-6957 (2000).
2. Cotoras, M., Vivanco, H., Melo, R., et al. *Molecules* **19**(12), 21154-21167 (2014).
3. Wei, X., Chen, D., Yi, Y., et al. *Evid. Based Complement. Alternat. Med.* **2012:426537**, (2012).
4. Orabi, K.Y., Abazar, M.S., El Sayed, K.A., et al. *Cancer Cell Int.* **13**(1), (2013).
5. Oboh, G., Isaac, A.T., Akinyemi, A.J., et al. *Int. J. Biomed. Sci.* **10**(3), 208-216 (2014).

#### 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

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#### 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