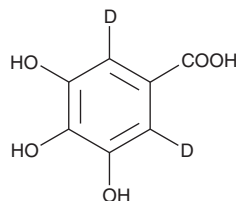


PRODUCT INFORMATION



Gallic Acid-d₂ Item No. 35132

CAS Registry No.: 294660-92-7
Formal Name: 3,4,5-trihydroxy-benzoic-2,6-d₂ acid
Synonym: 3,4,5-Trihydroxybenzoic Acid-d₂
MF: C₇H₄D₂O₅
FW: 172.1
Chemical Purity: ≥98% (Gallic acid)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₂); ≤1% d₀
UV/Vis.: λ_{max}: 218, 273 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

Gallic acid-d₂ is intended for use as an internal standard for the quantification of gallic acid (Item No. 11846) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Gallic acid-d₂ is supplied as a solid. A stock solution may be made by dissolving the gallic acid-d₂ in the solvent of choice, which should be purged with an inert gas. Gallic acid-d₂ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of gallic acid-d₂ in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

Gallic acid is a phenol that has been found in *C. sinensis* and has diverse biological activities.¹⁻⁴ It scavenges DPPH (Item No. 14805) and hydroxyl radicals in cell-free assays (IC₅₀s = 9.4 and 191 μM, respectively).¹ Gallic acid (1-100 μM) reverses abscisic acid-induced inhibition of hypocotyl growth in *A. caudatus* seedlings.² *In vivo*, gallic acid (21.8 g/kg) inhibits morpholine- and sodium nitrite-induced adenocarcinoma formation in mice.³ It also inhibits passive cutaneous anaphylaxis in mice when administered at a dose of 50 mg/kg.⁴

References

1. Cos, P., Hermans, N., Calomme, M., *et al.* Comparative study of eight well-known polyphenolic antioxidants. *J. Pharm. Pharmacol.* **55**(9), 1291-1297 (2003).
2. Ray, S.D., Guruprasad, K.N., and Laloraya, M.M. Antagonistic action of phenolic compounds on abscisic acid-induced inhibition of hypocotyl growth. *J. Exp. Bot.* **31**(125), 1651-1656 (1980).
3. Mirvish, S.S., Cardesa, A., Wallcave, L., *et al.* Induction of mouse lung adenomas by amines or ureas plus nitrite and by N-nitroso compounds: Effect of ascorbate, gallic acid, thiocyanate, and caffeine. *J. Natl. Cancer Inst.* **55**(3), 633-636 (1975).
4. Kar, K., Mohanta, P.K., Popli, S.P., *et al.* Inhibition of passive cutaneous anaphylaxis by compounds of *Camellia sinensis*. *Planta Med.* **42**(1), 75-78 (1981).

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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