

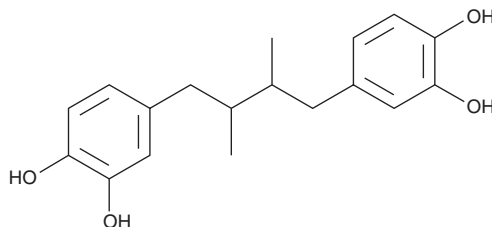
PRODUCT INFORMATION



Nordihydroguaiaretic Acid

Item No. 70300

CAS Registry No.: 500-38-9
Formal Name: 4,4'-(2,3-dimethyl-1,4-butanediyl)bis-1,2-benzenediol
Synonyms: NDGA, NSC 4291
MF: C₁₈H₂₂O₄
FW: 302.4
Purity: ≥95%
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

Nordihydroguaiaretic Acid (NDGA) is supplied as a crystalline solid. A stock solution may be made by dissolving the NDGA in the solvent of choice, which should be purged with an inert gas. NDGA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NDGA in ethanol and DMSO is approximately 100 mg/ml and approximately 25 mg/ml in DMF. Stock solutions prepared in oxygen-free solvents will be stable for at least one week if protected from light and stored at 0-4°C.

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 NDGA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of NDGA in PBS (pH 7.2) is approximately 0.05 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NDGA is a non-selective lipoxygenase (LO) inhibitor which blocks cysteinyl leukotriene (CysLT) synthesis. NDGA inhibits A-23187-induced CysLT biosynthesis in rat peritoneal cells with an IC₅₀ value of 5-7 μM.¹ The IC₅₀ values are 3.0-5.0 μM for human platelet 12-LO and 0.91 μM for rabbit reticulocyte 15-LO.^{1,2}

References

1. Hope, W.C., Welton, A.F., Fiedler-Nagy, C., *et al.* In vitro inhibition of the biosynthesis of slow reacting substance of anaphylaxis (SRS-A) and lipoxygenase activity by quercetin. *Biochem. Pharmacol.* **32(2)**, 367-371 (1983).
2. Pavani, M., Fones, E., Oksenberg, D., *et al.* Inhibition of tumoral cell respiration and growth by nordihydroguaiaretic acid. *Biochem. Pharmacol.* **48(10)**, 1935-1942 (1994).

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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