

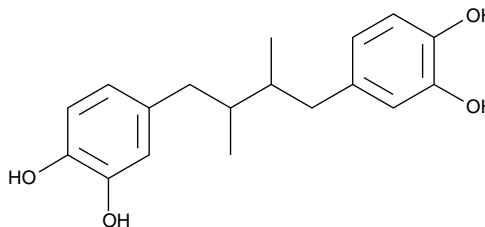
# Product Information



## 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  
**Synonym:** NDGA  
**MF:** C<sub>18</sub>H<sub>22</sub>O<sub>4</sub>  
**FW:** 302.4  
**Purity:** ≥95%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that Nordihydroguaiaretic Acid (NDGA) be stored as supplied at -20°C. It should be stable for at least one year.

Concentrated stock solutions of NDGA can be prepared by dissolving the crystalline solid in an organic solvent such as ethanol, methanol, acetone, DMSO, or acetonitrile. The solubility of NDGA in these solvents is approximately 100 mg/ml. 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. Also, ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

NDGA is a non-selective lipoxygenase inhibitor which blocks cysteinyl-leukotriene synthesis. NDGA inhibits A23187-induced cysteinyl-leukotriene biosynthesis in rat peritoneal cells with an IC<sub>50</sub> value of 5-7 μM.<sup>1</sup> The IC<sub>50</sub> values are 3.0-5.0 μM for human platelet 12-lipoxygenase and 0.91 μM for rabbit reticulocyte 15-lipoxygenase.<sup>1,2</sup>

### 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**, 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**, 1935-1942 (1994).

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