

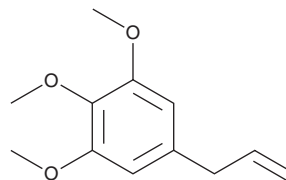
# PRODUCT INFORMATION



## Elemicin

Item No. 29394

**CAS Registry No.:** 487-11-6  
**Formal Name:** 1,2,3-trimethoxy-5-(2-propen-1-yl)-benzene  
**Synonym:** NSC 16704  
**MF:** C<sub>12</sub>H<sub>16</sub>O<sub>3</sub>  
**FW:** 208.3  
**Purity:** ≥98%  
**Supplied as:** A liquid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Elemicin is supplied as a liquid. A stock solution may be made by dissolving the elemicin in the solvent of choice, which should be purged with an inert gas. Elemicin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of elemicin in these solvents is approximately 20, 15, and 30 mg/ml, respectively.

### Description

Elemicin is a trioxygenated phenylpropane that has been found in *A. dracunculus*.<sup>1</sup> It is active against *S. aureus*, *B. subtilis*, and *C. albicans* (MICs = 600, 2,500, and 1,000 mg/L, respectively) but not *E. coli*, *K. pneumoniae*, *P. aeruginosa* (MICs = >8,000 mg/L for all), or *L. monocytogenes* (MIC = >3,000 mg/L). Elemicin is toxic to mice following metabolic activation to 1'-hydroxyelemicin by the cytochrome P450 (CYP) isoforms CYP1A1 and CYP1A2.<sup>2</sup> It increases plasma and hepatic triglyceride levels, decreases stearoyl-CoA desaturase 1 (Scd1) expression, and induces hepatomegaly in mice when administered at a dose of 500 mg/kg per day for three weeks.

### References

1. Pauli, A. and Kubeczka, K.H. Antimicrobial properties of volatile phenylpropanes. *Nat. Prod. Commun.* **5**(9), 1387-1394 (2010).
2. Yang, X.N., Wang, Y.K., Zhu, X., *et al.* Metabolic activation of elemicin leads to the inhibition of stearoyl-CoA desaturase 1. *Chem. Res. Toxicol.* **32**(10), 195-1976 (2019).

#### 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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