

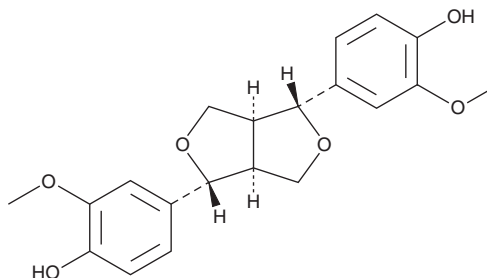
# PRODUCT INFORMATION



## (-)-Pinoresinol

Item No. 36850

**CAS Registry No.:** 81446-29-9  
**Formal Name:** 4,4'-[(1R,3aS,4R,6aS)-tetrahydro-1H,3H-furo[3,4-c]furan-1,4-diyl]bis[2-methoxy-phenol]  
**MF:** C<sub>20</sub>H<sub>22</sub>O<sub>6</sub>  
**FW:** 358.4  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Eucommia ulmoides* Oliver



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

### Laboratory Procedures

(-)-Pinoresinol is supplied as a solid. A stock solution may be made by dissolving the (-)-pinoresinol in the solvent of choice, which should be purged with an inert gas. (-)-Pinoresinol is soluble in chloroform, dichloromethane, ethyl acetate, DMSO, and acetone.

### Description

(-)-Pinoresinol is a lignan that has been found in *Manihot esculenta* and has diverse biological activities.<sup>1-3</sup> It scavenges DPPH (Item No. 14805) and ABTS (Item No. 27317) radicals in cell-free assays (EC<sub>50</sub>s = 0.2 and 0.055 mg/ml, respectively).<sup>1</sup> (-)-Pinoresinol selectively inhibits 5-lipoxygenase (5-LO) and 15-LO over COX-2 (IC<sub>50</sub>s = 13.8, 3.5, and >100 μM, respectively).<sup>2</sup> It also inhibits LPS-induced nitric oxide (NO) production in BV-2 microglial cells (IC<sub>50</sub> = 34.25 μM).<sup>3</sup>

### References

1. Yi, B., Hu, L., Mei, W., *et al.* Antioxidant phenolic compounds of cassava (*Manihot esculenta*) from Hainan. *Molecules* **16(12)**, 10157-10167 (2011).
2. Deng, S., Palu, A.K., West, B.J., *et al.* Lipoxygenase inhibitory constituents of the fruits of noni (*Morinda citrifolia*) collected in Tahiti. *J. Nat. Prod.* **70(5)**, 859-862 (2007).
3. Suh, W.S., Subedi, L., Kim, S.Y., *et al.* Bioactive lignan constituents from the twigs of *Sambucus williamsii*. *Bioorg. Med. Chem. Lett.* **26(8)**, 1877-1880 (2016).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/21/2022

#### 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