

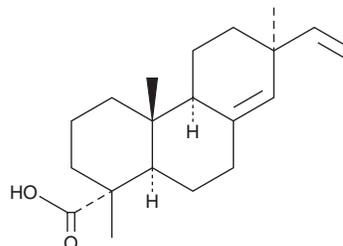
# PRODUCT INFORMATION



## Pimaric Acid

Item No. 26062

**CAS Registry No.:** 127-27-5  
**Formal Name:** (1R,4aR,4bS,7S,10aR)-7-ethenyl-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a,7-trimethyl-1-phenanthrenecarboxylic acid  
**Synonyms:** NSC 2956, 8(14),15-Pimaradien-18-oic acid  
**MF:** C<sub>20</sub>H<sub>30</sub>O<sub>2</sub>  
**FW:** 302.5  
**Purity:** ≥90%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

Pimaric acid is supplied as a solid. A stock solution may be made by dissolving the pimaric acid in the solvent of choice. Pimaric acid is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 1 mg/ml.

### Description

Pimaric acid is a resin acid that has been found in *A. cordata* and various pines.<sup>1,2</sup> It reduces mRNA expression, protein levels, and promoter activity of matrix metalloproteinase-9 (MMP-9) in TNF- $\alpha$ -stimulated human aortic smooth muscle cells (HASMCs) in a concentration-dependent manner when used at concentrations ranging from 5 to 20  $\mu$ M.<sup>1</sup> Pimaric acid (10-20  $\mu$ M) reduces nuclear expression and binding of the transcription factors NF- $\kappa$ B and AP-1 to the MMP-9 promoter in HASMCs. Pimaric acid also reduces TNF- $\alpha$ -induced HASMC migration to control levels when used at a concentration of 20  $\mu$ g/ml.

### References

1. Suh, S.-J., Kwak, C.-H., Chung, T.-W., *et al.* Pimaric acid from *Aralia cordata* has an inhibitory effect on TNF- $\alpha$ -induced MMP-9 production and HASMC migration via down-regulated NF- $\kappa$ B and AP-1. *Chem. Biol. Interact.* **199(2)**, 112-119 (2012).
2. Joye, N.M., Jr. and Lawrence, R.V. Resin acid composition of pine oleoresins. *J. Chem. Eng. Data* **12(2)**, 279-282 (1967).

#### 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, 01/07/2019

#### 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