

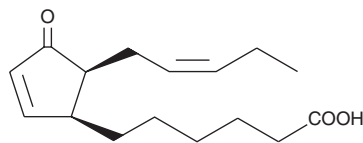
PRODUCT INFORMATION



dinor-12-oxo Phytodienoic Acid

Item No. 10710

CAS Registry No.: 197247-23-7
Formal Name: 4-oxo-5S-(2Z)-2-penten-1-yl-2-cyclopentene-1S-hexanoic acid
Synonyms: dinor-OPDA, dinor-12-oxo PDA
MF: C₁₆H₂₄O₃
FW: 264.4
Purity: ≥95%
UV/Vis.: λ_{max}: 220 nm
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥1 year



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

Laboratory Procedures

dinor-12-oxo Phytodienoic acid is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of dinor-12-oxo phytodienoic acid in these solvents is approximately 15 and 25 mg/ml, respectively.

dinor-12-oxo Phytodienoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of dinor-12-oxo phytodienoic acid should be diluted with the aqueous buffer of choice. The solubility of dinor-12-oxo phytodienoic acid in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

In plants, certain unsaturated fatty acids are oxygenated and then further modified along the jasmonate pathway to produce plant hormones that are involved in senescence, flower development, mechanotransduction, and the response to herbivory.¹ dinor-12-oxo-Phytodienoic acid (dinor-OPDA) is an intermediate in the synthesis of jasmonic acid from hexadecatrienoic acid.^{2,3} It can also be incorporated into glycerolipids and galactolipids, including certain arabidopsides.^{4,5}

References

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- Kourtchenko, O., Andersson, M.A., Hamberg, M., et al. Oxo-phytodienoic acid-containing galactolipids in Arabidopsis: Jasmonate signaling dependence. *Plant Physiol.* **145(4)**, 1658-69 (2007).
- Buseman, S.M., Tamura, P., Sparks, A.A., et al. Wounding stimulates the accumulation of glycerolipids containing oxophytodienoic acid and dinor-oxophytodienoic acid in Arabidopsis leaves. *Plant Physiol.* **142(1)**, 28-39 (2006).

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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