

PRODUCT INFORMATION



Vitamin A

Item No. 20241

CAS Registry No.: 68-26-8
Formal Name: (2E,4E,6E,8E)-3,7-dimethyl-9-(2,6,6-trimethylcyclohex-1-en-1-yl)nona-2,4,6,8-tetraen-1-ol

Synonyms: all-*trans* Retinol, all-*trans* Vitamin A, NSC 122759, Vitamin A₁ alcohol

MF: C₂₀H₃₀O

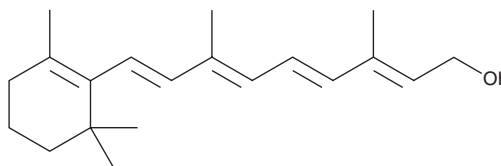
FW: 286.5

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Vitamin A is supplied as a crystalline solid. A stock solution may be made by dissolving the vitamin A in the solvent of choice. Vitamin A is soluble in the organic solvent chloroform, which should be purged with an inert gas, at a concentration of approximately 10 mg/ml.

Description

Vitamin A, also known as all-*trans* retinol, is an intermediate in retinol metabolism in animals. It is metabolized to retinoic acid (Item No. 11017), a ligand for both the retinoic acid receptor (RAR) and the retinoid X receptor (RXR). RAR and RXR heterodimerize and act as ligand-dependent transcriptional regulators, with roles in development, reproduction, immunity, organogenesis, and cancer.¹⁻³

References

1. Duong, V. and Rochette-Egly, C. The molecular physiology of nuclear retinoic acid receptors. From health to disease. *Biochim. Biophys. Acta.* **1812(8)**, 1023-1031 (2011).
2. Rochette-Egly, C. and Germain, P. Dynamic and combinatorial control of gene expression by nuclear retinoic acid receptors (RARs). *Nucl. Recept. Signal.* **7**, 1-18 (2009).
3. Dollé, P. Developmental expression of retinoic acid receptors (RARs). *Nucl. Recept. Signal.* **7**, 1-13 (2009).

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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