



## Product Information

**Product ID** R1876

**CAS No.** 68-26-8

**Chemical Name** 3,7-Dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,8-nonatetraen-1-ol

**Synonym** Alphasterol, Retinol, Avitol, Vitamin A

**Formula** C<sub>20</sub>H<sub>30</sub>O

**Formula Wt.** 286.45

**Melting Point** 63-64 °C

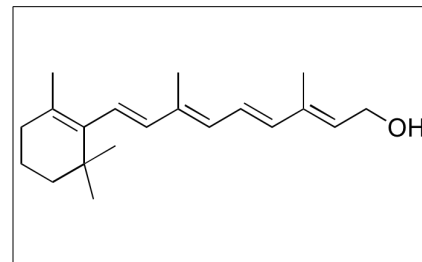
**Purity** ≥95%

**Solubility** Soluble in alcohol, methanol, chloroform, ether, fats or oils.

**Store Temp** -20 °C

**Ship Temp** Blue Ice

**Description** All-trans retinol is a diterpenoid component of vitamin A. This compound is an essential vitamin and is necessary for effective vision, skin health, and bone growth. Retinol and its metabolites activate retinoic acid receptors (RARs) and retinoid X receptors (RXRs), both of which have multiple isotypes and isoforms. During fetal development, retinol influences cellular differentiation in a variety of ways. Retinol also plays a role in cancer stem cell differentiation, mediated through ERK1/2 signaling. In the immune system, retinol appears to play a protective role in autoimmune diseases such as multiple sclerosis and encephalopathy, downregulating pro-inflammatory responses stimulated by Th1 and Th17 cells. TEST!!!!!!



## Pricing and Availability

**Bulk quantities available upon request**

Product ID	Size	List Price
R1876	25 mg	\$48.00
R1876	100 mg	\$67.40
R1876	250 mg	\$149.90
R1876	500 mg	\$212.60

**References** Friedman MD, Jeevan DS, Tobias M, et al. Targeting cancer stem cells in glioblastoma multiforme using mTOR inhibitors and the differentiating agent all-trans retinoic acid. *Oncol Rep.* 2013 Oct;30(4):1645-50. PMID: 23877261.

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Sharma RB, Wang Q, Khillan JS. Amplification of tumor inducing putative cancer stem cells (CSCs) by vitamin A/retinol from mammary tumors. *Biochem Biophys Res Commun.* 2013 Jul 12;436(4):625-31. PMID: 23764401.

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Duester G. Retinoic acid synthesis and signaling during early organogenesis. *Cell.* 2008 Sep 19;134(6):921-31. PMID: 18805086.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.