



Product Information

Product ID R1877
CAS No. 68-26-8
Chemical Name 3,7-Dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraen-1-ol

Synonym Alphasterol, Retinol, Avitol, Vitamin A

Formula C₂₀H₃₀O
Formula Wt. 286.45

Melting Point

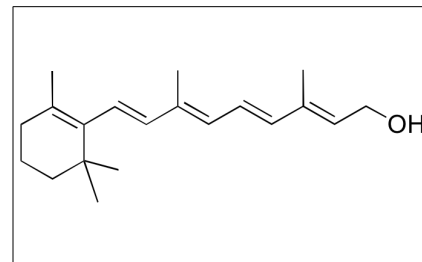
Purity $\geq 98\%$

Solubility The solubility of all-trans-retinal in ethanol and DMF is approximately 25 mg/ml and approximately 16 mg/ml in DMSO.

Store Temp -20°C

Ship Temp Blue Ice

Description All-trans retinol is a diterpene 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 bind 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.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
R1877	25 mg	\$66.20
R1877	100 mg	\$91.20
R1877	250 mg	\$201.40

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.

Zhan XX, Liu Y, Yang JF, et al. All-trans-retinoic acid ameliorates experimental allergic encephalomyelitis by affecting dendritic cell and monocyte development. *Immunology.* 2013 Apr;138(4):333-45. PMID: 23181531.

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.