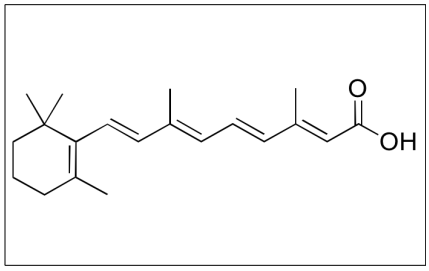
LKT Laboratories, Inc.

trans-Retinoic Acid

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID R1780
CAS No. 302-79-4
Chemical Name (all-E)-3,7-Dimethyl-9-(2,6,6-trimethyl- 1-cyclo-hexen- 1-yl)-2,4,6,8-nonatetraenoic acid
Synonym Retinoic acid, Vitamin A acid, tretinoin, Aberel, Avita, Eudyna, Kerlocal, Renova, Retin-A, Vesanoid



Formula $C_{20}H_{28}O_2$
Formula Wt. 300.44
Melting Point 180-182°C
Purity ≥98%
Solubility Soluble in DMSO. Slightly soluble in polyethylene glycol, octanol or ethanol. Practically insoluble in water, mineral oil or glycerin
Store Temp -20°C
Ship Temp Ambient

Bulk quanitites available upon request

Product ID	Size
R1780	500 mg
R1780	1 g
R1780	5 g

Description Trans-retinoic acid (RA) is an activator of the retinoic acid receptor (RAR) that exhibits anti-fibrotic, antiviral, antibacterial, immunomodulatory, and anticancer chemotherapeutic activities. RA is a vitamin A carboxylic acid that is clinically used to treat acne vulgaris, keratosis pilaris, and acute promyelocytic leukemia (APL). In vivo, RA inhibits fibroblast proliferation and scar formation and decreases levels of TGF-ß1, IL-6, and NF-κB. This compound also induces expression of IFNα in cells infected with enterovirus 71, decreasing viral infectivity. In subjects with APL, retinoic acid forces promyelocytes to differentiate into normal blood cells. In cutaneous squamous cell carcinoma cells, RA induces G1 phase cell cycle arrest, increases expression of p21 and p27, decreases expression of cyclin D1/CDK4 and cyclin E/CDK2, and induces apoptosis. RA decreases cellular cholesterol and inhibits *Mycobacterium* in an NPC2-dependent manner. This compound also induces expression of hedgehog (Hh) signaling receptor Patched 1, inhibiting Hh signaling.

References

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