

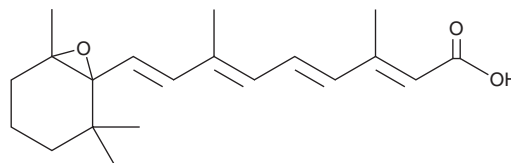
PRODUCT INFORMATION



all-trans-5,6-epoxy Retinoic Acid

Item No. 22124

CAS Registry No.: 13100-69-1
Formal Name: 5,6-epoxy-5,6-dihydro-retinoic acid
Synonyms: 5,6-epoxy atRA, 5,6-epoxy RA
MF: C₂₀H₂₈O₃
FW: 316.4
Purity: ≥96%
Supplied as: A solid
Storage: -80°C
Stability: ≥2 years
Special Conditions: Light and temperature sensitive



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

Laboratory Procedures

all-trans-5,6-epoxy Retinoic acid (5,6-epoxy RA) is supplied as a solid. A stock solution may be made by dissolving the 5,6-epoxy RA in the solvent of choice, which should be purged with an inert gas. 5,6-epoxy RA is soluble in chloroform and methanol.

Description

5,6-epoxy RA is an agonist of all isoforms of the retinoic acid receptor (RAR; EC₅₀s = 77, 35, and 4 nM for RAR α , RAR β , and RAR γ , respectively).¹ 5,6-epoxy RA (1 μ M) also induces growth arrest of MCF-7 and NB4 cells *in vitro*.^{2,3} It is a natural metabolite of all-trans retinoic acid (Item No. 11017), which is a metabolite of vitamin A.⁴

References

1. Idrest, N., Marill, J., Flexor, M.A., *et al.* Activation of retinoic acid receptor-dependent transcription by all-trans-retinoic acid metabolites and isomers. *J. Biol. Chem.* **277**(25), 31491-31498 (2002).
2. Van heusden, J., Wouters, W., Ramaekers, F.C.S., *et al.* All-trans-retinoic acid metabolites significantly inhibit the proliferation of MCF-7 human breast cancer cells *in vitro*. *Br. J. Cancer* **77**(1), 26-32 (1998).
3. Idres, N., Benoît, G., Flexor, M.A., *et al.* Granulocytic differentiation of human NB4 promyelocytic leukemia cells induced by all-trans retinoic acid metabolites. *Cancer Res.* **61**(2), 700-705 (2001).
4. McCormick, A.M., and Napoli, J.L. Identification of 5,6-epoxyretinoic acid as an endogenous retinol metabolite. *J. Biol. Chem.* **257**(4), 1730-1735 (1982).

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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