

All-Trans Retinoic Acid

Catalog Number :3027949

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: NSC 122578, Vitamin A Acid, Tretinoin, ATRA

Chemical Name: (2E,4E,6E,8E)-3,7-dimethyl-9-(2,6,6-trimethylcyclohexen-1-yl)nona-2,4,6,8-tetraenoic acid

Molecular Formula: C₂₀H₂₈O₂

Molecular Weight: 300.4

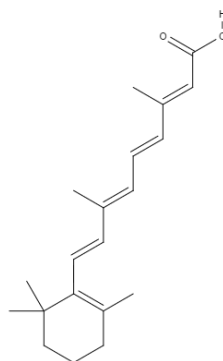
CAS Number: 302-79-4

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Retinoic Acid is vitamin A derivative that is an agonist for the retinoic acid receptors, which act as transcription factors that regulate the growth and differentiation of normal and malignant cells. It is reported to promote the differentiation of embryonic cells into motor neurons, pancreatic progenitors and cardiomyocytes.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. DMSO up to 65mM.

References

1. Dani, C., Smith, A. G., Dessolin, S., Leroy, P., Staccini, L., Villageois, P., ... Ailhaud, G. (1997). Differentiation of embryonic stem cells into adipocytes in vitro. *Journal of cell science*, 110(11), 1279-1285.
2. Wobus, A. M., Kaomei, G., Shan, J., Wellner, M. C., Rohwedel, J., Guanju, J., ... Franz, W. M. (1997). Retinoic acid accelerates embryonic stem cell-derived cardiac differentiation and enhances development of ventricular cardiomyocytes. *Journal of molecular and cellular cardiology*, 29(6), 1525-1539.
3. Takahashi, J., Palmer, T. D., Gage, F. H. (1999). Retinoic acid and neurotrophins collaborate to regulate neurogenesis in adult-derived neural stem cell cultures. *Journal of neurobiology*, 38(1), 65-81.