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RAR α (h3): 293T Lysate: sc-170472

BACKGROUND

Retinoids (RA) are metabolites of vitamin A (retinol) that are important signaling molecules during vertebrate development and tissue differentiation. RAs activate the retinoic acid receptor (RAR) and retinoid X receptor (RXR) nuclear transcription factor families. Most retinoid forms activate RAR family members, whereas RXR family members are activated by 9-*cis*-RA only. RAR family members, which include RAR α , RAR β and RAR γ , have a high affinity for all-*trans* retinoic acids and belong to the same class of nuclear transcription factors as thyroid hormone receptors, vitamin D₃ receptor and ecdysone receptor. RAR isoforms are expressed in distinct patterns throughout development and in the mature organism. The human RAR α gene maps to chromosome 17 and is implicated in the chromosomal translocation associated with acute promyelocytic leukemia (APL-M3). Specifically, the RAR α gene is fused with the promyelocytic leukemia (PML) gene, which encodes the fusion protein PML/RAR α . The PML/RAR α fusion protein inhibits PML-dependent apoptotic pathways and halts myeloid differentiation at the promyelocytic stage.

REFERENCES

1. Koelle, M.R., et al. 1991. The *Drosophila* EcR gene encodes an ecdysone receptor, a new member of the steroid receptor superfamily. *Cell* 67: 59-77.
2. Bhat, M.K., et al. 1994. Phosphorylation enhances the target gene sequence-dependent dimerization of thyroid hormone receptor with retinoid X receptor. *Proc. Natl. Acad. Sci. USA* 91: 7927-7931.
3. Mangelsdorf, D.J., et al. 1994. THE RETINOIDS: Biology, Chemistry, and Medicine, 2nd Edition. Sporn, M.B., Roberts, A.B. and Goodman, D.S., eds. New York: Raven Press, Ltd., 314-349.
4. Lotan, R. 1997. Roles of retinoids and their nuclear receptors in the development and prevention of upper aerodigestive tract cancers. 1997. *Environ. Health Perspect.* 4: 985-988.
5. Mark, M., et al. 1997. Genetic control of the development by retinoic acid. *C. R. Seances Soc. Biol. Fil.* 191: 77-90.
6. Randolph, T.R. 2000. Acute promyelocytic leukemia (AML-M3)—Part 2: Molecular defect, DNA diagnosis, and proposed models of leukemogenesis and differentiation therapy. *Clin. Lab. Sci.* 13: 106-116.
7. Wolf, G., et al. 2000. Retinoic acid induces the degradation of the leukemic protein encoded by the promyelocytic leukemia gene fused to the retinoic acid receptor α gene. *Nutr. Rev.* 58: 211-214.
8. Slack, J.L., et al. 2000. Current issues in the management of acute promyelocytic leukemia. *Ann. Hematol.* 79: 227-238.
9. Zhang, J.W., et al. 2000. Mechanisms of all-*trans* retinoic acid induced differentiation of acute promyelocytic leukemia cells. *J. Biosci.* 25: 275-284.

CHROMOSOMAL LOCATION

Genetic locus: RARA (human) mapping to 17q21.2.

PRODUCT

RAR α (h3): 293T Lysate represents a lysate of human RAR α transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

RAR α (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive RAR α antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.