

## RAR $\alpha$ (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 $\alpha$ , RAR $\beta$  and RAR $\gamma$ , have a high affinity for all-*trans* retinoic acids and belong to the same class of nuclear transcription factors as thyroid hormone receptors, vitamin D<sub>3</sub> receptor and ecdysone receptor. RAR isoforms are expressed in distinct patterns throughout development and in the mature organism. The human RAR $\alpha$  gene maps to chromosome 17 and is implicated in the chromosomal translocation associated with acute promyelocytic leukemia (APL-M3). Specifically, the RAR $\alpha$  gene is fused with the promyelocytic leukemia (PML) gene, which encodes the fusion protein PML/RAR $\alpha$ . The PML/RAR $\alpha$  fusion protein inhibits PML-dependent apoptotic pathways and halts myeloid differentiation at the promyelocytic stage.

### REFERENCES

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### CHROMOSOMAL LOCATION

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

### PRODUCT

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

### APPLICATIONS

RAR $\alpha$  (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive RAR $\alpha$  antibodies. Recommended use: 10-20  $\mu$ 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](http://www.scbt.com) for detailed protocols and support products.