RARα (C-1): sc-515796

**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 RARα, RARβ and RARγ, have a high affinity for all transtretinoic 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 RARα gene maps to chromosome 17q21.2 and is implicated in the chromosomal translocation associated with acute promyelocytic leukemia (APL-M3). Specifically, the RARα gene is fused with the promyelocytic leukemia (PML) gene, which encodes the fusion protein PML/RARα. The PML/RARα fusion protein inhibits PML-dependent apoptotic pathways and halts myeloid differentiation at the promyelocytic stage.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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<th>Genetic locus: RARA (human) mapping to 17q21.2; Rara (mouse) mapping to 11 D.</th>
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**SOURCE**

RARα (C-1) is a mouse monoclonal antibody raised against amino acids 63-382 mapping within an internal region of RARα of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RARα (C-1) is available conjugated to agarose (sc-515796 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515796 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515796 PE), fluorescein (sc-515796 FITC), Alexa Fluor® 488 (sc-515796 AF488), Alexa Fluor® 546 (sc-515796 AF546), Alexa Fluor® 594 (sc-515796 AF594) or Alexa Fluor® 647 (sc-515796 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515796 AF680) or Alexa Fluor® 790 (sc-515796 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**RESEARCH USE**

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

**APPLICATIONS**

RARα (C-1) is recommended for detection of RARα of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:1000-1:10000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50:1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30:1:3000).

Suitable for use as control antibody for RARα siRNA (h); sc-29465, RARα siRNA (m); sc-36393, RARα shRNA Plasmid (h); sc-29465-SH, RARα shRNA Plasmid (m); sc-36393-SH, RARα shRNA (h) Lentiviral Particles: sc-29465-V and RARα shRNA (m) Lentiviral Particles: sc-36393-V.

Molecular Weight of RARα: 52 kDa.

Positive Controls: RARα (m): 293T Lysate: sc-125890, NIH/3T3 whole cell lysate: sc-2210 or K-562 whole cell lysate: sc-2203.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000). Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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