

RAR γ (C-19): sc-550

BACKGROUND

Retinoids are metabolites of vitamin A (retinol) that are important signaling molecules during vertebrate development and tissue differentiation. Retinoic acid receptors (RARs) and retinoid X receptors (RXRs) are nuclear transcription factors that modulate the effects of retinoids (RA) on gene expression. Most retinoid forms (including all *trans* RA, 9-*cis* RA, 4oxo RA and 3,4 dihydro RA) activate RAR family members, whereas RXR family members are activated by 9-*cis*-RA only. RA binds RARs, inducing a change in receptor configuration that allows DNA binding and increased gene transcription from specific genes to occur. RAR family members, which include RAR α , RAR β and RAR γ , belong to the same class of nuclear transcription factors as thyroid hormone receptors, vitamin D₃ receptor and ecdysone receptor. Retinoid receptor expression is tissue specific; the skin expresses RAR γ and RXR α . The expression of RAR γ and RXR β was somewhat decreased in lung cancers. The human RAR γ gene maps to chromosome 12q13.13.

CHROMOSOMAL LOCATION

Genetic locus: RARG (human) mapping to 12q13.13.

SOURCE

RAR γ (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of RAR γ of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-550 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-550 X, 200 μ g/0.1 ml.

APPLICATIONS

RAR γ (C-19) is recommended for detection of RAR γ 1 and RAR γ 2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 RAR γ siRNA (h): sc-36392, RAR γ shRNA Plasmid (h): sc-36392-SH and RAR γ shRNA (h) Lentiviral Particles: sc-36392-V.

RAR γ (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RAR γ : 50 kDa.

Positive Controls: K-562 nuclear extract: sc-2130.

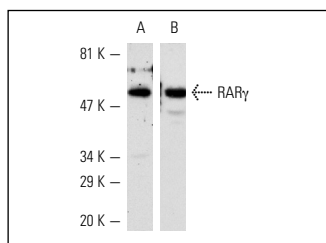
STORAGE

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

RESEARCH USE

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

DATA



Western blot analysis of RAR γ expression in NIH/3T3 (A) and K-562 (B) nuclear extracts. Antibodies tested include RAR (M-454): sc-773 (A) and RAR γ (C-19): sc-550 (B).

SELECT PRODUCT CITATIONS

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- Goumy, C., et al. 2010. Fetal skin fibroblasts: a cell model for studying the retinoid pathway in congenital diaphragmatic hernia. *Birth Defects Res. Part A Clin. Mol. Teratol.* 88: 195-200.
- Kumar, S. and Duester, G. 2010. Retinoic acid signaling in periostic mesenchyme represses Wnt signaling via induction of Pitx2 and Dkk2. *Dev. Biol.* 340: 67-74.
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- Virtanen, M., et al. 2010. Keratins 2 and 4/13 in reconstituted human skin are reciprocally regulated by retinoids binding to nuclear receptor RAR α . *Exp. Dermatol.* 19: 674-681.
- Karlsson, T., et al. 2010. Keratinocyte differentiation induced by calcium, phorbol ester or interferon- γ elicits distinct changes in the retinoid signalling pathways. *J. Dermatol. Sci.* 57: 207-213.
- Brade, T., et al. 2011. Retinoic acid stimulates myocardial expansion by induction of hepatic erythropoietin which activates epicardial Igf2. *Development* 138: 139-148.



Try **RAR γ (H-6): sc-398065** or **RAR γ (G-1): sc-7387**, our highly recommended monoclonal alternatives to RAR γ (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **RAR γ (H-6): sc-398065**.