BACKGROUND

Retinoids (RAs) activate the retinoic acid receptor (RAR) and retinoid X receptor (RXR) nuclear transcription factor families and thus modulate the effects of 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. RAR family members, which include RARα, RARβ and RARγ, belong to the same class of nuclear transcription factors as thyroid hormone receptors, vitamin D3 receptor and ecdysone receptor. The human RARβ gene maps to chromosome 3p24.2 and encodes two isoforms, RARβ1 and RARβ2. The RARβ2 isoform may act as a tumor suppressor gene by inducing apoptosis. This role for RARβ2 may explain the chemopreventive and therapeutic effects of retinoids. RARβ2 expression is diminished or lost completely during breast cancer progression. RARβ expression also decreases in over 50% of oral and lung premalignant lesions; loss of RARβ expression may contribute to carcinogenesis.

CHROMOSOMAL LOCATION

Genetic locus: RARB (human) mapping to 3p24.2; Rarb (mouse) mapping to 14 A2.

SOURCE

RARβ (C-19) is available as either rabbit (sc-552) or goat (sc-552-G) affinity purified polyclonal antibody raised against a peptide mapping to the C-terminus of RARB of human origin.

PRODUCT

Each vial contains either 100 µg (sc-552) or 200 µg (sc-552-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-552 P (100 µg 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-552 X, 200 µg/0.1 ml.

APPLICATIONS

RARβ (C-19) is recommended for detection of RARβ1 and RARβ2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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), immunochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). RARβ (C-19) is also recommended for detection of RARβ1 and RARβ2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for RARβ siRNA (h): sc-29466, RARβ siRNA (m): sc-36391, RARβ shRNA Plasmid (h): sc-29466-SH, RARβ shRNA Plasmid (m): sc-36391-SH, RARβ shRNA (h) Lentiviral Particles: sc-29466-V and RARβ shRNA (m) Lentiviral Particles: sc-36391-V.

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

Molecular Weight of RARβ: 51 kDa.

STORAGE

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

DATA

132 K 90 K 55 K 43 K 34 K 23 K

SELECT PRODUCT CITATIONS


RESEARCH USE

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