SANTA CRUZ BIOTECHNOLOGY, INC.

RORα1 (S-12): sc-26377

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Retinoids are metabolites of vitamin A (retinol) and represent an important class of signaling molecule during vertebrate development and tissue differentiation. A large group of nuclear transcription factors, including vitamin D_3 receptor (VDR), thyroid hormone receptor (TR), RAR, RXR and ecdysone receptor, have a high affinity for retinoic acids and are members of the steroid receptor superfamily. This family acts by directly associating with DNA sequences known as hormone response elements (HREs) and bind DNA as either homo- or heterodimers. RORα is a member of the steroid receptor superfamily and is classified as an "orphan receptor" due to the lack of a defined ligand. Two isoforms of RORα have been described and are designated RORα1 and RORα2. RORα, also referred to as RZR, binds DNA as a monomer at consensus RORα response elements (ROREs).

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. 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. Raven Press, Ltd., New York 314-349.
3. 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.
4. Mangelsdorf, D.J., et al. 1995. The nuclear receptor superfamily: the second decade. Cell 83: 835-839.

CHROMOSOMAL LOCATION

Genetic locus: RORA (human) mapping to 15q22.2; Rora (mouse) mapping to 9 C.

SOURCE

RORα1 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RORα1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26377 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-26377 X, 200 µg/0.1 ml.

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.

APPLICATIONS

RORα1 (S-12) is recommended for detection of RORα1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RORα1 (S-12) is also recommended for detection of RORα1 in additional species, including canine and bovine.

Suitable for use as control antibody for for RORα1 siRNA (h): sc-38864, RORα1 shRNA Plasmid (h): sc-38864-SH and RORα1 shRNA (h) Lentiviral Particles: sc-38864-V.

RORα1 (S-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

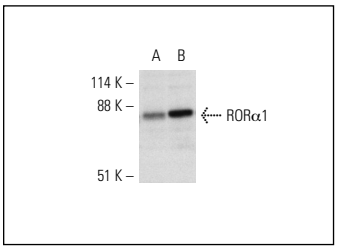
Molecular Weight of RORα1: 69 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or A549 cell lysate: sc-2413.

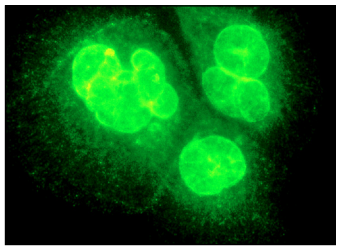
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RORα1 (S-12): sc-26377. Western blot analsis of RORα1 expression in rat brain (**A**) and mouse brain (**B**) tissue extracts.



RORα1 (S-12): sc-26377. Immunofluorescence staining of methanol-fixed SCC-4 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Garcıa, J.A., et al. 2015. Disruption of the NFκB/NLRP3 connection by melatonin requires retinoid-related orphan receptor-α and blocks the septic response in mice. FASEB J. E-published.