SANTA CRUZ BIOTECHNOLOGY, INC.

N-CoR (C-20): sc-1609

BACKGROUND

Retinoids are metabolites of vitamin A (retinol) and are believed to represent important signaling molecules during vertebrate development and tissue differentiation. Two families of retinoid receptors have been identified. Retinoic acid receptors (RARs), include RARα, RARβ and RARγ, each of which 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_3 receptor and ecdysone receptor. Two cofactors that function to repress transcription, designated SMRT and N-CoR, have been shown to associate with the thyroid receptor and RAR in their unliganded state and are released from them upon ligand binding. The carboxy-termini of both proteins contain receptor interacting domains while their amino-termini contain two previously undescribed repressor domains. SMRT (silencing mediator for RARs and TRs) is 1,495 amino acids in length. N-CoR (nuclear receptor corepressor) is a protein 2,453 amino acids in length.

CHROMOSOMAL LOCATION

Genetic locus: NCOR1 (human) mapping to 17p12; Ncor1 (mouse) mapping to 11 B2.

SOURCE

N-CoR (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of N-CoR of mouse 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-1609 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for ChIP application, sc-1609 X, 200 µg/0.1 ml.

APPLICATIONS

N-CoR (C-20) is recommended for detection of N-CoR 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).

N-CoR (C-20) is also recommended for detection of N-CoR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for N-CoR siRNA (h): sc-36001, N-CoR siRNA (m): sc-36002, N-CoR shRNA Plasmid (h): sc-36001-SH, N-CoR shRNA Plasmid (m): sc-36002-SH, N-CoR shRNA (h) Lentiviral Particles: sc-36001-V and N-CoR shRNA (m) Lentiviral Particles: sc-36002-V.

N-CoR (C-20) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of N-CoR: 270 kDa.

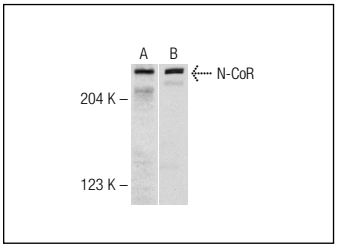
RESEARCH USE

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

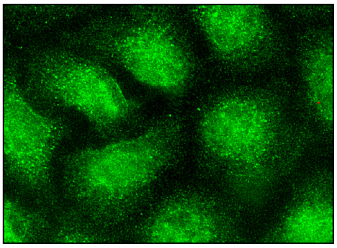
STORAGE

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

DATA



Western blot analysis of N-CoR expression in K-562 whole cell lysate (**A**) and nuclear extract (**B**). Antibodies tested include: N-CoR (N-19): sc-1611 (**A**) and N-CoR (C-20): sc-1609 (**B**).



N-CoR (C-20): sc-1609. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

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3. Müller, P., et al. 2009. Estrogen-dependent downregulation of hairy and enhancer of split homolog-1 gene expression in breast cancer cells is mediated via a 3' distal element. J. Endocrinol. 200: 311-319.
4. Wang, D., et al. 2009. Negative regulation of TSHα target gene by thyroid hormone involves histone acetylation and corepressor complex dissociation. Mol. Endocrinol. 23: 600-609.
5. Kim, G.H., et al. 2009. Characterization of ASC-2 as an antiatherogenic transcriptional coactivator of liver X receptors in macrophages. Mol. Endocrinol. 23: 966-974.
6. Wang, D., et al. 2010. Distinct and histone-specific modifications mediate positive versus negative transcriptional regulation of TSHα promoter. PLoS ONE 5: e9853.
7. Ansari, K.I., et al. 2011. HOXC6 Is transcriptionally regulated via coordination of MLL histone methylase and estrogen receptor in an estrogen environment. J. Mol. Biol. 411: 334-349.
8. Ali, A.B., et al. 2011. Role of chaperone mediated autophagy (CMA) in the degradation of misfolded N-CoR protein in non-small cell lung cancer (NSCLC) cells. PLoS ONE 6: e25268.