SANTA CRUZ BIOTECHNOLOGY, INC.

N-CoR (N-19): sc-1611

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-1611 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

N-CoR (N-19) 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 (N-19) is also recommended for detection of N-CoR in additional species, including canine 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.

Molecular Weight of N-CoR: 270 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or K-562 nuclear extract: sc-2130.

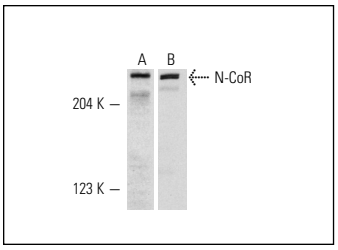
RESEARCH USE

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

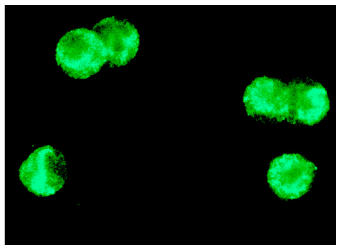
STORAGE

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 (N-19): sc-1611. Immunofluorescence staining of methanol-fixed K-562 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Guidez, F., et al. 2000. Recruitment of the nuclear receptor corepressor N-CoR by the TEL moiety of the childhood leukemia-associated TEL-AML1 oncoprotein. Blood 96: 2557-2561.
2. Webb, P., et al. 2003. Differential SERM effects on co-repressor binding dictate ERα activity *in vivo*. J. Biol. Chem. 278: 6912-6920.
3. Font, M.P., et al. 2004. Repression of transcription at the human T-cell receptor Vbeta2.2 segment is mediated by a MAX/MAD/mSin3 complex acting as a scaffold for HDAC activity. Biochem. Biophys. Res. Commun. 325: 1021-1029.
4. Racanicchi, S., et al. 2005. Targeting fusion protein/co-repressor contact restores differentiation response in leukemia cells. EMBO J. 24: 1232-1242.
5. Bowe, D.B., et al. 2006. O-GlcNAc integrates the proteasome and transcriptome to regulate nuclear hormone receptors. Mol. Cell. Biol. 26: 8539-8550.
6. Whisenhunt, T.R., et al. 2006. Disrupting the enzyme complex regulating O-GlcNAcylation blocks signaling and development. Glycobiology 16: 551-563.
7. Baudino, T.A., et al. 2008. Cell patterning: interaction of cardiac myocytes and fibroblasts in three-dimensional culture. Microsc. Microanal. 14: 117-125.
8. Suzuki, A., et al. 2010. Down-regulation of PROS1 gene expression by 17β-estradiol via estrogen receptor α (ERα)-Sp1 interaction re-cruiting receptor-interacting protein 140 and the corepressor-HDAC3 complex. J. Biol. Chem. 285: 13444-13453.