

N-CoR (F-1): sc-515934

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 RAR α , RAR β and RAR γ , 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 D₃ 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.

REFERENCES

1. Ishikawa, T., et al. 1990. A functional retinoic acid receptor encoded by the gene on human chromosome 12. *Mol. Endocrinol.* 4: 837-844.
2. Yang, N., et al. 1991. Characterization of DNA-binding and retinoic acid-binding properties of retinoic acid receptor. *Proc. Natl. Acad. Sci. USA* 88: 3559-3563.
3. Mangelsdorf, D.J., et al. 1994. The retinoid receptors. In Sporn, M.B., et al, eds. *The Retinoids: Biology, Chemistry, and Medicine*. New York: Raven Press, Ltd., 319-349.
4. 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.
5. Hörlein, A.J., et al. 1995. Ligand-independent repression by the thyroid hormone receptor mediated by a nuclear receptor co-repressor. *Nature* 377: 397-403.
6. Kurokawa, R., et al. 1995. Polarity-specific activities of retinoic acid receptors determined by a co-repressor. *Nature* 377: 451-454.
7. Chen, J.D., et al. 1995. A transcriptional co-repressor that interacts with nuclear hormone receptors. *Nature* 377: 454-457.

CHROMOSOMAL LOCATION

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

SOURCE

N-CoR (F-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2429-2453 at the C-terminus of N-CoR of mouse origin.

PRODUCT

Each vial contains 200 μ g IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for ChIP application, sc-515934 X, 200 μ g/0.1 ml.

APPLICATIONS

N-CoR (F-1) is recommended for detection of N-CoR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

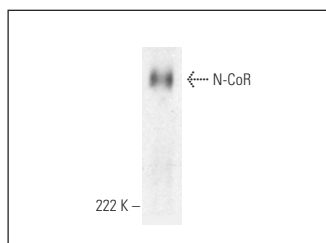
Suitable for use as control antibody for N-CoR siRNA (h): sc-36001, N-CoR siRNA (m): sc-36002, N-CoR shRNA Plasmid (h): sc-36001-SH, N-CoR shRNA Plasmid (m): sc-36002-SH, N-CoR shRNA (h) Lentiviral Particles: sc-36001-V and N-CoR shRNA (m) Lentiviral Particles: sc-36002-V.

N-CoR (F-1) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of N-CoR: 270 kDa.

Positive Controls: mouse brain extract: sc-2253.

DATA



N-CoR (F-1): sc-515934. Western blot analysis of N-CoR expression in mouse brain tissue extract.

SELECT PRODUCT CITATIONS

1. Iershov, A., et al. 2019. The class 3 PI3K coordinates autophagy and mitochondrial lipid catabolism by controlling nuclear receptor PPAR α . *Nat. Commun.* 10: 1566.
2. Xu, H.B., et al. 2020. Z-guggulsterone regulates MDR1 expression mainly through the pregnane X receptor-dependent manner in human brain microvessel endothelial cells. *Eur. J. Pharmacol.* 874: 173023.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.