

# ANKRD11 (2022C8a): sc-81049

## BACKGROUND

ANKRD11 (Ankyrin repeat domain-containing protein 11, Ankyrin repeat-containing cofactor 1) is a 2,664 amino acid protein encoded by the human gene ANKRD11. This nuclear protein belongs to a novel family of Ankyrin repeat-containing cofactors for p160 nuclear receptor coactivators and contains four Ankyrin repeats. Members of the p160 nuclear receptor coactivators interact with liganded nuclear receptors to enhance transcription of target genes. ANKRD11 has two intrinsic repression domains (RD): an N-terminal RD1 at residues 318-611 and a C-terminal RD2 at 2369-2663. ANKRD11 also contains an activation domain (AD) capable of stimulating transcription *in vitro*. The minimal AD is delimited to a 70 amino acid region at residues 2076-2145. Overall, ANKRD11 acts as a transcriptional repressor, suggesting that RD domains may suppress the AD activity. ANKRD11 shows the potential of modulating a combination of repression and activation signals.

## REFERENCES

1. Zhang, A., et al. 2004. Identification of a novel family of Ankyrin repeats containing cofactors for p160 nuclear receptor coactivators. *J. Biol. Chem.* 279: 33799-33805.
2. Olsen, J.V., et al. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.
3. Linke, S., et al. 2007. Characterization of Ankyrin repeat-containing proteins as substrates of the asparaginyl hydroxylase factor inhibiting hypoxia-inducible transcription factor. *Methods Enzymol.* 435: 61-85.
4. Zhang, A., et al. 2007. Characterization of transcriptional regulatory domains of Ankyrin repeat cofactor-1. *Biochem. Biophys. Res. Commun.* 358: 1034-1040.
5. Zhang, A., et al. 2007. Subcellular localization of Ankyrin repeats cofactor-1 regulates its corepressor activity. *J. Cell. Biochem.* 101: 1301-1315.
6. Barbaric, I., et al. 2008. An ENU-induced mutation in the ANKRD11 gene results in an osteopenia-like phenotype in the mouse mutant Yoda. *Physiol. Genomics* 32: 311-321.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD11 (human) mapping to 16q24.3; Ankrd11 (mouse) mapping to 8 E1.

## SOURCE

ANKRD11 (2022C8a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of ANKRD11 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

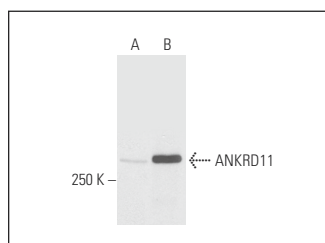
ANKRD11 (2022C8a) is recommended for detection of ANKRD11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for ANKRD11 siRNA (h): sc-93530, ANKRD11 siRNA (m): sc-77402, ANKRD11 shRNA Plasmid (h): sc-93530-SH, ANKRD11 shRNA Plasmid (m): sc-77402-SH, ANKRD11 shRNA (h) Lentiviral Particles: sc-93530-V and ANKRD11 shRNA (m) Lentiviral Particles: sc-77402-V.

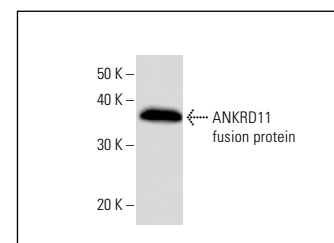
Molecular Weight of ANKRD11: 298 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 nuclear extract: sc-364819.

## DATA



ANKRD11 (2022C8a): sc-81049. Western blot analysis of ANKRD11 expression in Hep G2 nuclear extract (A) and HeLa whole cell lysate (B).



ANKRD11 (2022C8a): sc-81049. Western blot analysis of human recombinant ANKRD11 fusion protein.

## SELECT PRODUCT CITATIONS

1. Ka, M. and Kim, W.Y. 2018. ANKRD11 associated with intellectual disability and autism regulates dendrite differentiation via the BDNF/TrkB signaling pathway. *Neurobiol. Dis.* 111: 138-152.
2. Yuan, M., et al. 2023. Loss of ANCO1 expression regulates chromatin accessibility and drives progression of early-stage triple-negative breast cancer. *Int. J. Mol. Sci.* 24: 11505.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

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