

# ANKRD33 (N-13): sc-244932

## BACKGROUND

Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. Mutations of ankyrin genes lead to severe genetic diseases, such as fatal cardiac arrhythmias and hereditary spherocytosis. ANKRD33 (ankyrin repeat domain 33), also known as PANKY (photoreceptor ankyrin repeat protein), is a 272 amino acid protein that contains 3 ANK repeats and exists as 2 alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 12q13.13, ANKRD33 inhibits DNA-binding of CRX, thereby playing a role in terminal differentiation of photoreceptor cells. Conserved in chimpanzee, bovine and mouse, ANKRD33 is strongly expressed in retina, as well as pineal gland and both developing and mature photoreceptors. Deletion of ANKRD33 and five neighboring genes is linked to hereditary haemorrhagic telangiectasia.

## REFERENCES

1. Liu, P., et al. 2006. Candidate lung tumor susceptibility genes identified through whole-genome association analyses in inbred mice. *Nat. Genet.* 38: 888-895.
2. Pujana, M.A., et al. 2007. Molecular characterization of a t(9;12)(p21;q13) balanced chromosome translocation in combination with integrative genomics analysis identifies C9orf14 as a candidate tumor-suppressor. *Genes Chromosomes Cancer* 46: 155-162.
3. Shoukier, M., et al. 2008. Characterization of five novel large deletions causing hereditary haemorrhagic telangiectasia. *Clin. Genet.* 73: 320-330.
4. Sitras, V., et al. 2009. Placental gene expression profile in intrauterine growth restriction due to placental insufficiency. *Reprod. Sci.* 16: 701-711.
5. Fujino, Y., et al. 2009. Identification of a novel common proviral integration site, flit-1, in feline leukemia virus induced thymic lymphoma. *Virology* 386: 16-22.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD33 (human) mapping to 12q13.13; Ankrd33 (mouse) mapping to 15 F2.

## SOURCE

ANKRD33 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ANKRD33 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-244932 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

ANKRD33 (N-13) is recommended for detection of ANKRD33 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); non cross-reactive with other ANKRD family members.

ANKRD33 (N-13) is also recommended for detection of ANKRD33 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ANKRD33 siRNA (h): sc-96204, ANKRD33 siRNA (m): sc-141091, ANKRD33 shRNA Plasmid (h): sc-96204-SH, ANKRD33 shRNA Plasmid (m): sc-141091-SH, ANKRD33 shRNA (h) Lentiviral Particles: sc-96204-V and ANKRD33 shRNA (m) Lentiviral Particles: sc-141091-V.

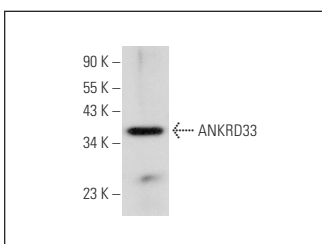
Molecular Weight of ANKRD33: 29 kDa.

Positive Controls: human liver extract: sc-363766.

## 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



ANKRD33 (N-13): sc-244932. Western blot analysis of ANKRD33 expression in human liver tissue extract.

## RESEARCH USE

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

## PROTOCOLS

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