ANKRD33 (L-15): sc-244934



The Power to Question

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

- 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.
- 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.
- Hu, J., et al. 2010. Computational analysis of tissue-specific gene networks: application to murine retinal functional studies. Bioinformatics 26: 2289-2297.
- 7. Sanuki, R., et al. 2010. Panky, a novel photoreceptor-specific ankyrin repeat protein, is a transcriptional cofactor that suppresses CRX-regulated photoreceptor genes. FEBS Lett. 584: 753-758.
- 8. You, Y.H., et al. 2010. Time-series gene expression profiles in AGS cells stimulated with *Helicobacter pylori*. World J. Gastroenterol. 16: 1385-1396.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD33 (human) mapping to 12q13.13.

SOURCE

ANKRD33 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANKRD33 of human origin.

RESEARCH USE

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

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-244934 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANKRD33 (L-15) is recommended for detection of ANKRD33 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (L-15) is also recommended for detection of ANKRD33 in additional species, including equine, bovine and porcine.

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

Molecular Weight of ANKRD33: 29 kDa.

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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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

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