

# ANKRD29 (K-13): sc-84692

## 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. ANKRD29 (ankyrin repeat domain-containing protein 29) is a 301 amino acid protein that contains 8 ankyrin repeats and exists as 3 alternatively spliced isoforms. The gene encoding human ANKRD29 maps to chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

## REFERENCES

1. Carstea, E.D., et al. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. *Proc. Natl. Acad. Sci. USA* 90: 2002-2004.
2. Petek, E., et al. 2003. Characterisation of a 19-year-old "long-term survivor" with Edwards syndrome. *Genet. Couns.* 14: 239-244.
3. Raghavan, S.C., et al. 2004. A non-B-DNA structure at the Bcl-2 major breakpoint region is cleaved by the RAG complex. *Nature* 428: 88-93.
4. Grosso, S., et al. 2005. Chromosome 18 aberrations and epilepsy: a review. *Am. J. Med. Genet. A* 134: 88-94.
5. Aurizi, C., et al. 2007. Heterogeneity of mutations in the ferrochelatase gene in Italian patients with erythropoietic protoporphyria. *Mol. Genet. Metab.* 90: 402-407.
6. Broderick, P., et al. 2007. A genome-wide association study shows that common alleles of SMAD7 influence colorectal cancer risk. *Nat. Genet.* 39: 1315-1317.
7. Kamal, A.H., et al. 2007. Hereditary hemorrhagic telangiectasia. *Mayo Clin. Proc.* 82: 1364.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD29 (human) mapping to 18q11.2; Ankrd29 (mouse) mapping to 18 A1.

## SOURCE

ANKRD29 (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ANKRD29 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84692 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

ANKRD29 (K-13) is recommended for detection of ANKRD29 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.

ANKRD29 (K-13) is also recommended for detection of ANKRD29 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ANKRD29 siRNA (h): sc-72500, ANKRD29 siRNA (m): sc-141089, ANKRD29 shRNA Plasmid (h): sc-72500-SH, ANKRD29 shRNA Plasmid (m): sc-141089-SH, ANKRD29 shRNA (h) Lentiviral Particles: sc-72500-V and ANKRD29 shRNA (m) Lentiviral Particles: sc-141089-V.

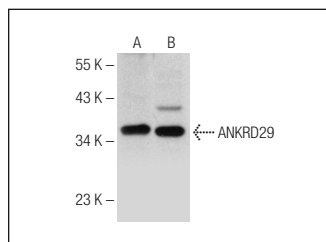
Molecular Weight of ANKRD29: 32 kDa.

Positive Controls: mouse lung extract: sc-2390 or mouse brain extract: sc-2253.

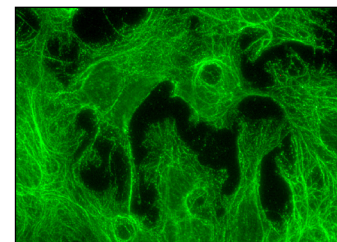
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ANKRD29 (K-13): sc-84692. Western blot analysis of ANKRD29 expression in mouse lung (A) and mouse brain (B) tissue extracts.



ANKRD29 (K-13): sc-84692. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoskeletal localization.

## STORAGE

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