

# ANKRD34A (C-20): sc-169957

## 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. ANKRD34A (ankyrin repeat domain 34A) is a 496 amino acid protein that contains 4 ANK repeats and belongs to the ANKRD34 family. Conserved in canine, bovine, mouse and rat, ANKRD34A is encoded by a gene that maps to human chromosome 1q21.1. A rare, *de novo* microduplication on chromosome 1q21.1, which includes ANKRD34A, may be associated with congenital heart defects. As the largest human chromosome, chromosome 1 makes up approximately 8% of the human genome and contains 260 million base pairs encoding 3,000 genes. Numerous diseases are linked to chromosome 1, notably the rare aging disease Hutchinson-Gilford progeria. Familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease and Usher syndrome are also associated with chromosome 1.

## REFERENCES

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- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
- McClintock, D., et al. 2006. Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody. *Proc. Natl. Acad. Sci. USA* 103: 2154-2159.
- Bowden, N.A., et al. 2007. Gene expression profiling in familial adenomatous polyposis adenomas and desmoid disease. *Hered. Cancer Clin. Pract.* 5: 79-96.
- Brunet, A., et al. 2009. BAC array CGH in patients with velocardiofacial syndrome-like features reveals genomic aberrations on chromosome region 1q21.1. *BMC Med. Genet.* 10: 144.
- Fujisaki, H., et al. 2009. Replicative potential of human natural killer cells. *Br. J. Haematol.* 145: 606-613.
- SWISS-PROT/TrEMBL (Q69YU3). World Wide Web URL: <http://www.uniprot.org/uniprot/Q69YU3>

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD34A (human) mapping to 1q21.1.

## SOURCE

ANKRD34A (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ANKRD34A of human origin.

## STORAGE

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

## 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-169957 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANKRD34A (C-20) is recommended for detection of ANKRD34A 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 ANKRD34C.

ANKRD34A (C-20) is also recommended for detection of ANKRD34A in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ANKRD34A siRNA (h): sc-78704, ANKRD34A shRNA Plasmid (h): sc-78704-SH and ANKRD34A shRNA (h) Lentiviral Particles: sc-78704-V.

Molecular Weight of ANKRD34A: 52 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) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.