

# ANKRD57 (C-20): sc-244971

## 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. ANKRD57 (ankyrin repeat domain 57) is a 525 amino acid phosphoprotein that contains 2 ANK repeats. Conserved in chimpanzee, canine, mouse, rat, chicken and zebrafish, ANKRD57 is encoded by a gene that maps to human chromosome 2q13. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. Chromosome 2 contains a probable vestigial second centromere, as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

## REFERENCES

1. Jdo, J.W., Baldini, A., Ward, D.C., Reeders, S.T. and Wells, R.A. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avarello, R., Pedicini, A., Caiulo, A., Zuffardi, O. and Fraccaro, M. 1992. Evidence for an ancestral aliphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
3. Hillier, L.W., Graves, T.A., Fulton, R.S., Fulton, L.A., Pepin, K.H., Minx, P., Wagner-McPherson, C., Layman, D., Wylie, K., Sekhon, M., Becker, M.C., Fewell, G.A., Delehaunty, K.D., Miner, T.L., Nash, W.E., Kremitzki, C., Oddy, L., Du, H., Sun, H., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
4. Baup, D., Moser, M., Schurmans, S. and Leo, O. 2009. Developmental regulation of the composite CAG promoter activity in the murine T lymphocyte cell lineage. *Genesis* 47: 799-804.
5. Szeliga, M., Obara-Michlewska, M., Matyja, E., Łazarczyk, M., Lobo, C., Hilgier, W., Alonso, F.J., Marquez, J. and Albrecht, J. 2009. Transfection with liver-type glutaminase cDNA alters gene expression and reduces survival, migration and proliferation of T98G glioma cells. *Glia* 57: 1014-1023.
6. Chang, H., Jeung, H.C., Jung, J.J., Kim, T.S., Rha, S.Y. and Chung, H.C. 2010. Identification of genes associated with chemosensitivity to SAHA/taxane combination treatment in taxane-resistant breast cancer cells. *Breast Cancer Res. Treat.* 125: 55-63.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD57 (human) mapping to 2q13.

## SOURCE

ANKRD57 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ANKRD57 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-244971 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANKRD57 (C-20) is recommended for detection of ANKRD57 of 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.

Suitable for use as control antibody for ANKRD57 siRNA (h): sc-94987, ANKRD57 shRNA Plasmid (h): sc-94987-SH and ANKRD57 shRNA (h) Lentiviral Particles: sc-94987-V.

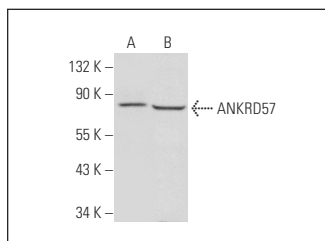
Molecular Weight of ANKRD57: 56 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## 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



ANKRD57 (C-20): sc-244971. Western blot analysis of ANKRD57 expression in HeLa (A) and Hep G2 (B) whole cell lysates.

## RESEARCH USE

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