

# ANKRD36 (N-12): sc-137290

## 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. ANKRD36 (ankyrin repeat domain 36), also known as ANKRD36A, is a 1,941 amino acid protein that contains 6 ANK repeats and belongs to the ANKRD36 family. Existing as four alternatively spliced isoforms, ANKRD36 is encoded by a gene that maps to human chromosome 2q11.2. Translocation of exon 2 at chromosome 2q11.2, which includes ANKRD36, and intron 1 at chromosome 11p15.1 may be associated with T-cell acute lymphoblastic leukemia. 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. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
5. Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. *Dermatology* 215: 155-159.
6. Marshall, J.D., et al. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. *Hum. Mutat.* 28: 1114-1123.
7. Guastadisegni, M.C., et al. 2008. Bone marrow ectopic expression of a non-coding RNA in childhood T-cell acute lymphoblastic leukemia with a novel t(2;11)(q11.2;p15.1) translocation. *Mol. Cancer* 7: 80.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD36 (human) mapping to 2q11.2.

## SOURCE

ANKRD36 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ANKRD36 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-137290 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANKRD36 (N-12) is recommended for detection of ANKRD36 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) 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 ANKRD36 siRNA (h): sc-95005, ANKRD36 shRNA Plasmid (h): sc-95005-SH and ANKRD36 shRNA (h) Lentiviral Particles: sc-95005-V.

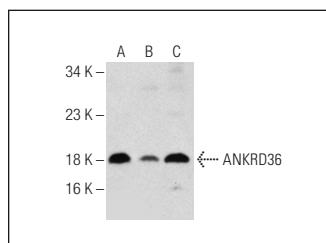
Molecular Weight of ANKRD36 isoforms 1-4: 217/83/19/20 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, PC-3 cell lysate: sc-2220 or LNCaP cell lysate: sc-2231.

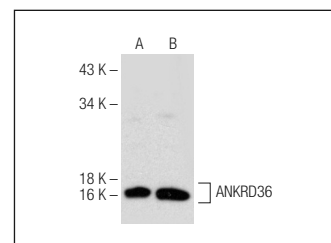
## RECOMMENDED SECONDARY REAGENTS

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



ANKRD36 (N-12): sc-137290. Western blot analysis of ANKRD36 expression in MIA PaCa-2 (A), PC-3 (B) and LNCaP (C) whole cell lysates.



ANKRD36 (N-12): sc-137290. Western blot analysis of ANKRD36 expression in Jurkat (A) and PC-3 (B) whole cell lysates.

## STORAGE

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

## 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.