

# ANKRD42 (L-13): sc-132622

## 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. ANKRD42 (ankyrin repeat domain 42), also known as SARP, is a 389 amino acid protein that exists as 2 alternatively spliced isoforms that contains 9 ANK repeats. Found at highest levels in testis and sperm, ANKRD42 is ubiquitously expressed and is encoded by a gene located on human chromosome 11. Chromosome 11 houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that map to chromosome 11.

## REFERENCES

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2. Bennett, V., et al. 1985. Ankyrin and synapsin: spectrin-binding proteins associated with brain membranes. *J. Cell. Biochem.* 29: 157-169.
3. Hryniewicz-Jankowska, A., et al. 2002. Ankyrins, multifunctional proteins involved in many cellular pathways. *Folia Histochem. Cytobiol.* 40: 239-249.
4. Hopitzan, A.A., et al. 2006. Molecular evolution of ankyrin: gain of function in vertebrates by acquisition of an Obscurin/Titin-binding-related domain. *Mol. Biol. Evol.* 23: 46-55.
5. Cai, X., et al. 2006. Molecular evolution of the ankyrin gene family. *Mol. Biol. Evol.* 23: 550-558.
6. Browne, G.J., et al. 2007. SARP, a new alternatively spliced protein phosphatase 1 and DNA interacting protein. *Biochem. J.* 402: 187-196.
7. Bhuiyan, Z.A., et al. 2008. An intronic mutation leading to incomplete skipping of exon-2 in KCNQ1 rescues hearing in Jervell and Lange-Nielsen syndrome. *Prog. Biophys. Mol. Biol.* 98: 319-327.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD42 (human) mapping to 11q14.1; Ankrd42 (mouse) mapping to 7 E1.

## SOURCE

ANKRD42 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANKRD42 of human origin.

## 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-132622 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANKRD42 (L-13) is recommended for detection of ANKRD42 isoforms 1 and 2 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.

ANKRD42 (L-13) is also recommended for detection of ANKRD42 isoforms 1 and 2 in additional species, including canine and porcine.

Suitable for use as control antibody for ANKRD42 siRNA (h): sc-96652, ANKRD42 siRNA (m): sc-141101, ANKRD42 shRNA Plasmid (h): sc-96652-SH, ANKRD42 shRNA Plasmid (m): sc-141101-SH, ANKRD42 shRNA (h) Lentiviral Particles: sc-96652-V and ANKRD42 shRNA (m) Lentiviral Particles: sc-141101-V.

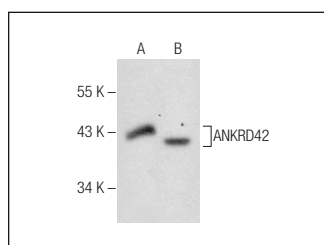
Molecular Weight of ANKRD42: 43 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or SW480 cell lysate: sc-2219.

## 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



ANKRD42 (L-13): sc-132622. Western blot analysis of ANKRD42 expression in MCF7 (A) and SW480 (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.