SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD38 (T-13): sc-138118

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. ANKRD38 (ankyrin repeat domain 38), also known as KANK4 (KN motif and ankyrin repeat domains 4) or kidney ankyrin repeat-containing protein 4, is a 995 amino acid coiled-coil protein that contains five ANK repeats. ANKRD38 is conserved in cow, mouse, rat and chicken, and exists as two alternatively spliced isoforms. Expressed in colon, kidney, liver, lung and skeletal muscle, ANKRD38 may function in the formation of actin stress fibers. ANKRD38 is encoded by a gene that maps to human chromosome 1p31.3. 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.

REFERENCES

1. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
2. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
3. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
4. Bowden, N.A., et al. 2007. Gene expression profiling in familial adenomatous polyposis adenomas and desmoid disease. Hered. Cancer Clin. Pract. 5: 79-96.
5. Zhu, Y., et al. 2008. Kank proteins: a new family of ankyrin-repeat domain-containing proteins. Biochim. Biophys. Acta 1780: 128-133.
6. Kakinuma, N., et al. 2009. Kank proteins: structure, functions and diseases. Cell. Mol. Life Sci. 66: 2651-2659.
7. SWISS-PROT/TrEMBL (Q5T7N3). World Wide Web URL: http://www.uniprot.org/uniprot/Q5T7N3

CHROMOSOMAL LOCATION

Genetic locus: KANK4 (human) mapping to 1p31.3; Kank4 (mouse) mapping to 4 C6.

SOURCE

ANKRD38 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ANKRD38 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-138118 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ANKRD38 (T-13) is recommended for detection of ANKRD38 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), 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 ANKRD38 siRNA (h): sc-88040, ANKRD38 siRNA (m): sc-141097, ANKRD38 shRNA Plasmid (h): sc-88040-SH, ANKRD38 shRNA Plasmid (m): sc-141097-SH, ANKRD38 shRNA (h) Lentiviral Particles: sc-88040-V and ANKRD38 shRNA (m) Lentiviral Particles: sc-141097-V.

Molecular Weight of ANKRD38: 107 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.