

ANKRD31 (P-16): sc-244931



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. ANKRD31 (ankyrin repeat domain 31) is a 1,873 amino acid protein that contains six ANK repeats. Conserved in chimpanzee, canine and mouse, ANKRD31 is encoded by a gene that maps to human chromosome 5. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Chromosome 5 is associated with Cockayne syndrome, familial adenomatous polyposis and Treacher Collins syndrome. Deletion of 5q, or chromosome 5 altogether, is common in acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., Read, A.P., Donnai, D., Colley, A., Dixon, J. and Williamson, R. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
2. Saltman, D.L., Dolganov, G.M., Warrington, J.A., Wasmuth, J.J. and Lovett, M. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
3. Kadmon, M., Tandara, A. and Herfarth, C. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the heidelberg polyposis register. Int. J. Colorectal Dis. 16: 63-75.
4. Marklund, L., Melin, M., Melberg, A., Giedraitis, V. and Dahl, N. 2006. Adult-onset autosomal dominant leukodystrophy with autonomic symptoms restricted to 1.5 Mbp on chromosome 5q23. Am. J. Med. Genet. B Neuropsychiatr. Genet. 141B: 608-614.
5. Han, W., Han, M.R., Kang, J.J., Bae, J.Y., Lee, J.H., Bae, Y.J., Lee, J.E., Shin, H.J., Hwang, K.T., Hwang, S.E., Kim, S.W. and Noh, D.Y. 2006. Genomic alterations identified by array comparative genomic hybridization as prognostic markers in tamoxifen-treated estrogen receptor-positive breast cancer. BMC Cancer 6: 92.
6. Herry, A., Douet-Guilbert, N., Morel, F., Le Bris, M.J. and De Braekeleer, M. 2007. Redefining monosomy 5 by molecular cytogenetics in 23 patients with MDS/AML. Eur. J. Haematol. 78: 457-467.
7. Aretz, S., Stienen, D., Friedrichs, N., Stemmler, S., Uhlhaas, S., Rahner, N., Propping, P. and Friedl, W. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
8. Cleaver, J.E., Hefner, E., Laposca, R.R., Karentz, D. and Marti, T. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.
9. Mullighan, C.G., Phillips, L.A., Su, X., Ma, J., Miller, C.B., Shurtleff, S.A. and Downing, J.R. 2008. Genomic analysis of the clonal origins of relapsed acute lymphoblastic leukemia. Science 322: 1377-1380.

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: ANKRD31 (human) mapping to 5q13.3; Ankrd31 (mouse) mapping to 13 D1.

SOURCE

ANKRD31 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ANKRD31 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-244931 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANKRD31 (P-16) is recommended for detection of ANKRD31 of mouse, rat and 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 other ANKRD family members.

ANKRD31 (P-16) is also recommended for detection of ANKRD31 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ANKRD31 siRNA (h): sc-91854, ANKRD31 siRNA (m): sc-148767, ANKRD31 shRNA Plasmid (h): sc-91854-SH, ANKRD31 shRNA Plasmid (m): sc-148767-SH, ANKRD31 shRNA (h) Lentiviral Particles: sc-91854-V and ANKRD31 shRNA (m) Lentiviral Particles: sc-148767-V.

Molecular Weight of ANKRD31: 211 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.

STORAGE

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

PROTOCOLS

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