

Akirin2 (L-12): sc-167066

BACKGROUND

Akirin2, also known as C6orf166, is a 203 amino acid nuclear protein belonging to the Akirin family. Widely expressed, with highest levels in peripheral blood leukocytes, Akirin2 is a downstream effector of the TNF, IL-1 and TLR signaling pathways which lead to the production of IL-6. Akirin2 also interacts with 14-3-3 to form a complex which represses the transcription of MKP-1. The gene that encodes Akirin2 maps to human chromosome 6. Chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus.

REFERENCES

- Mungall, A.J., Palmer, S.A., Sims, S.K., Edwards, C.A., Ashurst, J.L., Wilming, L., Jones, M.C., Horton, R., Hunt, S.E., Scott, C.E., Gilbert, J.G.R., Clamp, M.E., Bethel, G., Milne, S., Ainscough, R., Almeida, J.P., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
- Vuoristo, M.M., Pappas, J.G., Jansen, V. and Ala-Kokko, L. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130: 160-164.
- McQueen, M.B., Devlin, B., Faraone, S.V., Nimgaonkar, V.L., Sklar, P., Smoller, J.W., Abou Jamra, R., Albus, M., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Batts, K.P. 2007. Iron overload syndromes and the liver. *Mod. Pathol.* 20 Suppl. 1: S31-S39.
- Olsson, K.S., Ritter, B. and Hansson, N. 2007. The HLA-A1-B8 haplotype hitchhiking with the hemochromatosis mutation: does it affect the phenotype? *Eur. J. Haematol.* 79: 429-434.
- Park, E., Kim, S., Kim, S.J., Park, Y., Lee, J.S., Yoo, J.C., Kim, C.S., Kim, D., K., Lee, S.Y. and Chun, H.S. 2007. Modulation of parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.
- Safadi, S.S. and Shaw, G.S. 2007. A disease state mutation unfolds the parkin ubiquitin-like domain. *Biochemistry* 46: 14162-14169.
- Bläker, H., Mechtersheimer, G., Sutter, C., Hertkorn, C., Kern, M.A., Rieker, R.J., Penzel, R., Schirmacher, P. and Kloor, M. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.

CHROMOSOMAL LOCATION

Genetic locus: AKIRIN2 (human) mapping to 6q15; Akirin2 (mouse) mapping to 4 A5.

SOURCE

Akirin2 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Akirin2 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-167066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Akirin2 (L-12) is recommended for detection of Akirin2 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 C6orf family members.

Akirin2 (L-12) is also recommended for detection of Akirin2 in additional species, including equine and canine.

Suitable for use as control antibody for Akirin2 siRNA (h): sc-95471, Akirin2 siRNA (m): sc-140980, Akirin2 shRNA Plasmid (h): sc-95471-SH, Akirin2 shRNA Plasmid (m): sc-140980-SH, Akirin2 shRNA (h) Lentiviral Particles: sc-95471-V and Akirin2 shRNA (m) Lentiviral Particles: sc-140980-V.

Molecular Weight of Akirin2: 22 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.

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.