

KANK3 (E-16): sc-244958

BACKGROUND

KANK3 (KN motif and ankyrin repeat domains 3), also known as ANKRD47, is a 840 amino acid protein containing 5 ANK repeats. Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. KANK3 is highly expressed in breast, liver, lung, skeletal muscle and kidney tissues and may play a role in the control of cytoskeleton formation by regulating actin polymerization. The gene encoding KANK3 is located on chromosome 19. Chromosome 19 makes up over 2% of the human genome and contains approximately 63 million bases, which encode over 1,400 genes. Recognized for having the greatest gene density of all human chromosomes, chromosome 19 is linked to Peutz-Jeghers syndrome, spinocerebellar ataxia type 6, the stroke disorder CADASIL, hypercholesterolemia and Insulin-dependent diabetes.

REFERENCES

- Zimmermann, W., et al. 1988. Chromosomal localization of the carcinoembryonic antigen gene family and differential expression in various tumors. *Cancer Res.* 48: 2550-2554.
- Trettel, F., et al. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
- Buchet-Poyau, K., et al. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. *Cytogenet. Genome Res.* 97: 171-178.
- Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. *Eur. J. Immunogenet.* 29: 287-291.
- Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
- Brocke-Heidrich, K., et al. 2006. BCL3 is induced by IL-6 via Stat3 binding to intronic enhancer HS4 and represses its own transcription. *Oncogene* 25: 7297-7304.
- Vikelis, M., et al. 2007. A novel CADASIL-causing mutation in a stroke patient. *Swiss Med. Wkly.* 137: 323-325.
- Zhu, Y., et al. 2008. Kank proteins: a new family of ankyrin-repeat domain-containing proteins. *Biochim. Biophys. Acta* 1780: 128-133.
- Kakinuma, N., et al. 2009. Kank proteins: structure, functions and diseases. *Cell. Mol. Life Sci.* 66: 2651-2659.

CHROMOSOMAL LOCATION

Genetic locus: KANK3 (human) mapping to 19p13.2; Kank3 (mouse) mapping to 17 B1.

SOURCE

KANK3 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KANK3 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-244958 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KANK3 (E-16) is recommended for detection of KANK3 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).

KANK3 (E-16) is also recommended for detection of KANK3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for KANK3 siRNA (h): sc-97590, KANK3 siRNA (m): sc-141106, KANK3 shRNA Plasmid (h): sc-97590-SH, KANK3 shRNA Plasmid (m): sc-141106-SH, KANK3 shRNA (h) Lentiviral Particles: sc-97590-V and KANK3 shRNA (m) Lentiviral Particles: sc-141106-V.

Molecular Weight of KANK3: 88 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.