

KANK4 (L-13): sc-138117



The Power to Question

BACKGROUND

KANK4 (KN motif and ankyrin repeat domains 3), also known as ANKRD38, is a 995 amino acid protein containing 5 repeats. Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. KANK4 is highly expressed in colon, 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 KANK4 is located on chromosome 1. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1.

REFERENCES

1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
4. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
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. Gee, H.Y., et al. 2015. KANK deficiency leads to podocyte dysfunction and nephrotic syndrome. *J. Clin. Invest.* 125: 2375-2384.

CHROMOSOMAL LOCATION

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

SOURCE

KANK4 (L-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of KANK4 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-138117 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

KANK4 (L-13) is recommended for detection of KANK4 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).

KANK4 (L-13) is also recommended for detection of KANK4 in additional species, including canine and porcine.

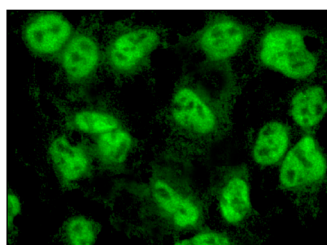
Suitable for use as control antibody for KANK4 siRNA (h): sc-88040, KANK4 siRNA (m): sc-141097, KANK4 shRNA Plasmid (h): sc-88040-SH, KANK4 shRNA Plasmid (m): sc-141097-SH, KANK4 shRNA (h) Lentiviral Particles: sc-88040-V and KANK4 shRNA (m) Lentiviral Particles: sc-141097-V.

Molecular Weight of KANK4: 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 Blotting 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.

DATA



KANK4 (L-13): sc-138117. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

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.