

KIAA2013 (N-14): sc-243199

BACKGROUND

KIAA2013 is a 634 amino acid single-pass type I membrane protein that exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 1p36.22. 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. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders— cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
4. Lans, H., et al. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.

CHROMOSOMAL LOCATION

Genetic locus: KIAA2013 (human) mapping to 1p36.22; 2510039018Rik (mouse) mapping to 4 E2.

SOURCE

KIAA2013 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KIAA2013 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-243199 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

KIAA2013 (N-14) is recommended for detection of 2510039018Rik of mouse origin, KIAA2013 of human origin, and RGD1305350 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

KIAA2013 (N-14) is also recommended for detection of KIAA2013 in additional species, including bovine and porcine.

Suitable for use as control antibody for KIAA2013 siRNA (h): sc-88650, 2510039018Rik siRNA (m): sc-108769, KIAA2013 shRNA Plasmid (h): sc-88650-SH, 2510039018Rik shRNA Plasmid (m): sc-108769-SH, KIAA2013 shRNA (h) Lentiviral Particles: sc-88650-V and 2510039018Rik shRNA (m) Lentiviral Particles: sc-108769-V.

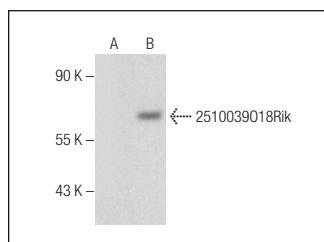
Molecular Weight of KIAA2013 isoforms: 69/73 kDa.

Positive Controls: 2510039018Rik (m): 293T Lysate: sc-124870.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



KIAA2013 (N-14): sc-243199. Western blot analysis of 2510039018Rik expression in non-transfected: sc-117752 (A) and mouse 2510039018Rik transfected: sc-124870 (B) 293T whole cell lysates.

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.