SANTA CRUZ BIOTECHNOLOGY, INC.

KIAA1024 (C-20): sc-243177



The Power to Question

BACKGROUND

KIAA1024 is a 916 amino acid protein that is a single-pass membrane protein and belongs to the UPF0258 family. This helical transmembrane protein undergoes heavy glycosylation and the gene encoding KIAA1024 maps to human chromosome 15q25.1. Chromosome 15 is made up of approximately 106 million base pairs and comprises about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

REFERENCES

- Hurowitz, G.I., Silver, J.M., Brin, M.F., Williams, D.T. and Johnson, W.G. 1993. Neuropsychiatric aspects of adult-onset Tay-Sachs disease: two case reports with several new findings. J. Neuropsychiatry Clin. Neurosci. 5: 30-36.
- Kikuno, R., Nagase, T., Ishikawa, K., Hirosawa, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 197-205.
- Nakajima, D., Okazaki, N., Yamakawa, H., Kikuno, R., Ohara, O. and Nagase, T. 2002. Construction of expression-ready cDNA clones for KIAA genes: manual curation of 330 KIAA cDNA clones. DNA Res. 9: 99-106.
- 4. Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. JAAPA 21: 21-25.
- 5. Dan, B. 2009. Angelman syndrome: current understanding and research prospects. Epilepsia 50: 2331-2339.
- Ferrer-Bolufer, I., Dalmau, J., Quiroga, R., Oltra, S., Orellana, C., Monfort, S., Roselló, M., De La Osa, A. and Martinez, F. 2009. Tyrosinemia type 1 and Angelman syndrome due to paternal uniparental isodisomy 15. J. Inherit. Metab. Dis. E-published.
- 7. Wawrzik, M., Unmehopa, U.A., Swaab, D.F., van de Nes, J., Buiting, K. and Horsthemke, B. 2010. The C15orf2 gene in the Prader-Willi syndrome region is subject to genomic imprinting and positive selection. Neurogenetics 11: 153-161.

CHROMOSOMAL LOCATION

Genetic locus: KIAA1024 (human) mapping to 15q25.1; AF529169 (mouse) mapping to 9 E3.1.

SOURCE

KIAA1024 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KIAA1024 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243177 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KIAA1024 (C-20) is recommended for detection of KIAA1024 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).

KIAA1024 (C-20) is also recommended for detection of KIAA1024 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for KIAA1024 siRNA (h): sc-90068, KIAA1024 shRNA Plasmid (h): sc-90068-SH and KIAA1024 shRNA (h) Lentiviral Particles: sc-90068-V.

Molecular Weight of KIAA1024: 103 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) Immunofluo-rescence: 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.