SANTA CRUZ BIOTECHNOLOGY, INC.

KIAA1199 (E-14): sc-164775

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

KIAA1199, also known as CCSP1 and TMEM2L, is a 1,361 amino acid protein that belongs to the TMEM2 family. KIAA1199 may be involved in hearing as it is specifically expressed in the cochlea and vestibular tissues. KIAA1199 exists as two alternatively spliced isoforms that is heavily glycosylated and post-translationally phosphorylated at tyrosine 142. The gene encoding KIAA1199 maps to human chromosome 15, which encodes more than 700 genes and makes up 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

1. Hurowitz, G.I., et al. 1993. Neuropsychiatric aspects of adult-onset Tay-Sachs disease: two case reports with several new findings. J. Neuropsychiatry Clin. Neurosci. 5: 30-36.
2. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 337-345.
3. Abe, S., et al. 2003. Identification of CRYM as a candidate responsible for nonsyndromic deafness, through cDNA microarray analysis of human cochlear and vestibular tissues. Am. J. Hum. Genet. 72: 73-82.
4. Abe, S., et al. 2003. Mutations in the gene encoding KIAA1199 protein, an inner-ear protein expressed in Deiters' cells and the fibrocytes, as the cause of nonsyndromic hearing loss. J. Hum. Genet. 48: 564-570.

CHROMOSOMAL LOCATION

Genetic locus: KIAA1199 (human) mapping to 15q25.1; 9930013L23Rik (mouse) mapping to 7 D3.

SOURCE

KIAA1199 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KIAA1199 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-164775 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

KIAA1199 (E-14) is recommended for detection of KIAA1199 of human origin and 9930013L23Rik of mouse origin and the corresponding rat homolog 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); non cross-reactive with other KIAA family members.

KIAA1199 (E-14) is also recommended for detection of KIAA1199 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for KIAA1199 siRNA (h): sc-90061, 9930013L23Rik siRNA (m): sc-140583, KIAA1199 shRNA Plasmid (h): sc-90061-SH, 9930013L23Rik shRNA Plasmid (m): sc-140583-SH, KIAA1199 shRNA (h) Lentiviral Particles: sc-90061-V and 9930013L23Rik shRNA (m) Lentiviral Particles: sc-140583-V.

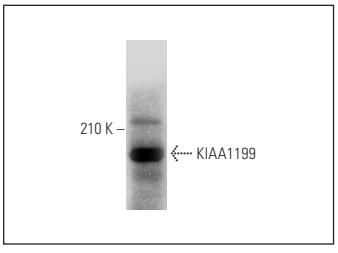
Molecular Weight of KIAA1199 isoforms: 153/110 kDa.

Positive Controls: BE (2)-M17 whole cell lysate: sc-364358.

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-2494.

DATA



KIAA1199 (E-14): sc-164775. Western blot analysis of KIAA1199 expression in BE (2)-M17 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yang, X., et al. 2015. KIAA1199 as a potential diagnostic biomarker of rheumatoid arthritis related to angiogenesis. Arthritis Res. Ther. 17: 140.

RESEARCH USE

For research use only, not for use in diagnostic procedures.