

# KIAA1109 (S-16): sc-161778

## BACKGROUND

KIAA1109, also known as FSA, MGC110967 or DKFZp781P0474, is 5,005 amino acid uncharacterized single-pass membrane protein that is highly expressed in testis and ovary, and is encoded by a gene located on human chromosome 4 and mouse chromosome 3. Chromosome 4 encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease. Murine chromosome 3 houses over 1,300 genes, some of which express alcohol dehydrogenases (ADHs), sodium channel modifiers (SCNMs), interleukins (ILs) and Insulin receptor-related (IRR) proteins. Defects in chromosome 3-localized genes are associated with hereditary congenital facial paresis (HCFP), increased susceptibility to spontaneous colitis, HIV-1-associated nephropathy, decreased renal vascular health and malignant sporadic pancreatic endocrine tumors.

## REFERENCES

1. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 273-281.
2. Guo, S.S., et al. 2002. Frequent deletion of chromosome 3 in malignant sporadic pancreatic endocrine tumors. *Mol. Cell. Endocrinol.* 190: 109-114.
3. Okazaki, N., et al. 2003. Prediction of the coding sequences of mouse homologues of KIAA gene: III. the complete nucleotide sequences of 500 mouse KIAA-homologous cDNAs identified by screening of terminal sequences of cDNA clones randomly sampled from size-fractionated libraries. *DNA Res.* 10: 167-180.
4. Lorschach, R.B., et al. 2003. TET1, a member of a novel protein family, is fused to MLL in acute myeloid leukemia containing the t(10;11)(q22;q23). *Leukemia* 17: 637-641.
5. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
6. Tang, H., et al. 2006. Generation of Ayu17-449 gene knockout mice by gene trapping. *Yi Chuan* 28: 129-132.
7. Tang, H., et al. 2006. Cloning and expression analysis of a murine novel gene, Ayu17-449. *Yi Chuan Xue Bao* 33: 413-419.
8. Tang, H., et al. 2008. Characterization of Ayu17-449 gene expression and resultant kidney pathology in a knockout mouse model. *Transgenic Res.* 17: 599-608.

## CHROMOSOMAL LOCATION

Genetic locus: KIAA1109 (human) mapping to 4q27; 4932438A13Rik (mouse) mapping to 3 B.

## SOURCE

KIAA1109 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of KIAA1109 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-161778 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KIAA1109 (S-16) is recommended for detection of KIAA1109 of human origin and 4932438A13Rik of mouse origin and the corresponding homolog of rat 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); non cross-reactive with other KIAA family members.

KIAA1109 (S-16) is also recommended for detection of KIAA1109 of in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for 4932438A13Rik siRNA (m): sc140254, 4932438A13Rik shRNA Plasmid (m): sc-140254-SH and 4932438A13Rik shRNA (m) Lentiviral Particles: sc-140254-V.

Molecular Weight of KIAA1109: 555 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](http://www.scbt.com) or our catalog for detailed protocols and support products.