

# KIAA0319L (I-12): sc-138372

## BACKGROUND

KIAA0319L, also known as dyslexia-associated protein KIAA0319-like protein, is expressed in cortical neurons in the brain cortex. KIAA0319L is thought to interact with NgR3 (Nogo-66 receptor-related protein 3) for axon guidance. KIAA0319L is a multi-pass membrane protein that contains one MANSC domain five PKD domains, and is N-glycosylated. Containing 1,049 amino acids, KIAA0319L is post-translationally phosphorylated at the residues Serine 978 and Threonine 974. Due to alternative splicing events, KIAA0319L exists as three isoforms. The gene encoding KIAA0319L maps to human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and makes up 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

- Rudd, N.L., et al. 1991. Kinetochore analysis of micronuclei allows insights into the actions of colcemid and mitomycin C. *Mutat. Res.* 261: 57-68.
- Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. *Science* 280: 1753-1757.
- Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
- Nakajima, D., et al. 2002. Construction of expression-ready cDNA clones for KIAA genes: manual curation of 330 KIAA cDNA clones. *DNA Res.* 9: 99-106.
- Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
- Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. *Neurobiol. Dis.* 31: 309-315.
- Holliday, E.G., et al. 2009. Strong evidence for a novel schizophrenia risk locus on chromosome 1p31.1 in homogeneous pedigrees from Tamil Nadu, India. *Am. J. Psychiatry* 166: 206-215.
- Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. *Cancer Genet. Cytogenet.* 192: 68-72.
- Poon, M.W., et al. 2011. Dyslexia-associated kiaz0319-like protein interacts with axon guidance receptor nogo receptor 1. *Cell. Mol. Neurobiol.* 31: 27-35.

## CHROMOSOMAL LOCATION

Genetic locus: KIAA0319L (human) mapping to 1p34.3; AU040320 (mouse) mapping to 4 D2.2.

## RESEARCH USE

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

## SOURCE

KIAA0319L (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of KIAA0319L 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-138372 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KIAA0319L (I-12) is recommended for detection of KIAA0319L of human origin, AU040320 of mouse origin and the corresponding rat homolog 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.

KIAA0319L (I-12) is also recommended for detection of KIAA0319L in additional species, including avian.

Suitable for use as control antibody for KIAA0319L siRNA (h): sc-78934, AU040320 siRNA (m): sc-141393, KIAA0319L shRNA Plasmid (h): sc-78934-SH, AU040320 shRNA Plasmid (m): sc-141393-SH, KIAA0319L shRNA (h) Lentiviral Particles: sc-78934-V and AU040320 shRNA (m) Lentiviral Particles: sc-141393-V.

Molecular Weight of KIAA0319L isoforms: 55/110/116 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.