

# KIAA0319L siRNA (h): sc-78934

## 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

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## CHROMOSOMAL LOCATION

Genetic locus: KIAA0319L (human) mapping to 1p34.3.

## PROTOCOLS

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

## PRODUCT

KIAA0319L siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see KIAA0319L shRNA Plasmid (h): sc-78934-SH and KIAA0319L shRNA (h) Lentiviral Particles: sc-78934-V as alternate gene silencing products.

For independent verification of KIAA0319L (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-78934A, sc-78934B and sc-78934C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

KIAA0319L siRNA (h) is recommended for the inhibition of KIAA0319L expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor KIAA0319L gene expression knockdown using RT-PCR Primer: KIAA0319L (h)-PR: sc-78934-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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