SANTA CRUZ BIOTECHNOLOGY, INC.

ATXN2L siRNA (h): sc-93060

BACKGROUND

ATXN2L (Ataxin-2-like protein) is a 1,075 amino acid peripheral membrane protein that belongs to the Ataxin-2 family. Expressed at high levels in thymus, lymph node, spleen, fetal kidney and adult testis, ATXN2L interacts with c-Mpl and EpoR, and dissociates after ligand stimulation. ATXN2L associates with the thrombopoietin receptor, c-Mpl, and is a component of a cytokine signaling cascade following receptor activation. ATXN2L contains three domains that share significant homology with Ataxin-2. The N terminus of ATXN2L has eight interrupted glutamines replacing the polyglutamine tract of Ataxin-2. The ATXN2L gene is conserved in chimpanzee, canine, bovine, mouse, rat, zebrafish, *M. grisea* and *N. crassa,* exists as seven alternatively spliced isoforms, and maps to human chromosome 16p11.2. Deletions to the 16p11 region are associated with early-onset IBD susceptibility, adult-onset Crohn's disease and adult-onset ulcerative colitis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ATXN2L (human) mapping to 16p11.2.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

ATXN2L 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ATXN2L shRNA Plasmid (h): sc-93060-SH and ATXN2L shRNA (h) Lentiviral Particles: sc-93060-V as alternate gene silencing products.

For independent verification of ATXN2L (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-93060A, sc-93060B and sc-93060C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

ATXN2L siRNA (h) is recommended for the inhibition of ATXN2L 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 µM in 66 µl. 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 ATXN2L gene expression knockdown using RT-PCR Primer: ATXN2L (h)-PR: sc-93060-PR (20 µl, 467 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Park, S., Dahn, R., Kurt, E., Presle, A., VanDenHeuvel, K., Moravec, C., Jambhekar, A., Olukoga, O., Shepherd, J., Echard, A., Blower, M. and Skop, A.R. 2023. The mammalian midbody and midbody remnant are assembly sites for RNA and localized translation. Dev. Cell 58: 1917-1932.e6.

RESEARCH USE

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