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SANTA CRUZ BIOTECHNOLOGY, INC.

LYAR siRNA (m): sc-149169

BACKGROUND

LYAR (Ly1 antibody reactive), also known as ZLYAR or cell growth-regulating nucleolar protein, is a 379 amino acid nucleolar protein containing two C2HC-type zinc fingers. Expressed at high levels in immature spermatocytes in testis, early embryos and in fetal liver and thymus with low expression in kidney and spleen, LYAR may function as a novel nucleolar oncoprotein to regulate cell growth. It is suggested that LYAR participates in regulating the stability of C23, a protein that is critical for maintaining the self-renewal and differentiation of embryonic stem cells (ESCs). C23 is a eukaryotic nucleolar phosphoprotein that influences synthesis and maturation of ribosomes. LYAR forms a complex with C23, thereby preventing self-cleavage and maintaining steady levels of C23 in undifferentiated ESCs. Downregulation of LYAR decreases C23 stability in ESCs, which in turn negatively affects growth and increases the rate of apoptosis of these cells.

REFERENCES

1. Lischwe, M.A., Richards, R.L., Busch, R.K. and Busch, H. 1981. Localization of phosphoprotein C23 to nucleolar structures and to the nucleolus organizer regions. Exp. Cell Res. 136: 101-109.
2. Egyhazi, E., Pigon, A., Chang, J.H., Ghaffari, S.H., Dreesen, T.D., Wellman, S.E., Case, S.T. and Olson, M.O. 1988. Effects of anti-C23 (nucleolin) antibody on transcription of ribosomal DNA in *Chironomus* salivary gland cells. Exp. Cell Res. 178: 264-272.
3. Su, L., Hershberger, R.J. and Weissman, I.L. 1993. LYAR, a novel nucleolar protein with zinc finger DNA-binding motifs, is involved in cell growth regulation. Genes Dev. 7: 735-748.
4. Tsubata, T., Murakami, M. and Honjo, T. 1994. Antigen-receptor cross-linking induces peritoneal B-cell apoptosis in normal but not autoimmunity-prone mice. Curr. Biol. 4: 8-17.
5. Ginisty, H., Amalric, F. and Bouvet, P. 1998. Nucleolin functions in the first step of ribosomal RNA processing. EMBO J. 17: 1476-1486.
6. Scherl, A., Coutε, Y., Deon, C., Calle, A., Kindbeiter, K., Sanchez, J.C., Greco, A., Hochstrasser, D. and Diaz, J.J. 2002. Functional proteomic analysis of human nucleolus. Mol. Biol. Cell 13: 4100-4109.
7. Li, H., Wang, B., Yang, A., Lu, R., Wang, W., Zhou, Y., Shi, G., Kwon, S.W., Zhao, Y. and Jin, Y. 2009. Ly-1 antibody reactive clone is an important nucleolar protein for control of self-renewal and differentiation in embryonic stem cells. Stem Cells 27: 1244-1254.

CHROMOSOMAL LOCATION

Genetic locus: Lyar (mouse) mapping to 5 B3.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

LYAR siRNA (m) is a pool of 2 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 LYAR shRNA Plasmid (m): sc-149169-SH and LYAR shRNA (m) Lentiviral Particles: sc-149169-V as alternate gene silencing products.

For independent verification of LYAR (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-149169A and sc-149169B.

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

LYAR siRNA (m) is recommended for the inhibition of LYAR expression in mouse 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 LYAR gene expression knockdown using RT-PCR Primer: LYAR (m)-PR: sc-149169-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.