SANTA CRUZ BIOTECHNOLOGY, INC.

GATAD1 siRNA (h): sc-89708

BACKGROUND

GATAD1 (GATA zinc finger domain-containing protein 1), also known as ODAG (ocular development-associated gene protein), is a 269 amino acid protein that is involved in early ocular development. Expressed highly in postnatal eye tissue, GATAD1 is associated with formation of the lens and its surrounding structures, suggesting a possible role in the transformation of ocular tissues into a working eye. GATAD1 expression declines dramatically after the early stages of development. GATAD1 contains one GATA-type zinc finger which functions as a DNA-binding domain. Additionally, GATAD1 gene expression is amplified in certain cancerous cells, suggesting that it may be involved in carcinogenesis.

REFERENCES

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3. Nagel, S., Leich, E., Quentmeier, H., Meyer, C., Kaufmann, M., Drexler, H.G., Zettl, A., Rosenwald, A. and Macleod, R.A. 2007. Amplification at 7q22 targets cyclin-dependent kinase 6 in T-cell lymphoma. Leukemia 22: 387-392.
4. Agelopoulos, K., Kersting, C., Korsching, E., Schmidt, H., Kuijper, A., August, C., Wülfing, P., Tio, J., Boecker, W., van Diest, P.J., Brandt, B. and Buerger, H. 2007. Egfr amplification specific gene expression in phyllodes tumours of the breast. Cell. Oncol. 29: 443-451.

CHROMOSOMAL LOCATION

Genetic locus: GATAD1 (human) mapping to 7q21.2.

PRODUCT

GATAD1 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 GATAD1 shRNA Plasmid (h): sc-89708-SH and GATAD1 shRNA (h) Lentiviral Particles: sc-89708-V as alternate gene silencing products.

For independent verification of GATAD1 (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-89708A, sc-89708B and sc-89708C.

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.

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

GATAD1 siRNA (h) is recommended for the inhibition of GATAD1 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.

GENE EXPRESSION MONITORING

GATAD1 (GATA9A1D3): sc-81092 is recommended as a control antibody for monitoring of GATAD1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor GATAD1 gene expression knockdown using RT-PCR Primer: GATAD1 (h)-PR: sc-89708-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.