SANTA CRUZ BIOTECHNOLOGY, INC.

AIG1 siRNA (h): sc-95273

BACKGROUND

AIG1 (androgen-induced 1) is a 245 amino acid multi-pass membrane protein belonging to the AIG1 family. Encoded by a gene that maps to human chromosome 6q24.2, AIG1 exists as five alternatively spliced isoforms. Highly expressed in heart, ovary, testis, liver and kidney, AIG1 is also expressed at lower levels in spleen, prostate, brain, skeletal muscle, pancreas, small intestine, colon and hair follicle. AIG1 exhibits higher expression in male hair follicles than in female follicles, and may play a role in androgen-regulated growth of hair follicles. AIG1 shares 37% homology with FAR-17a, an androgen inducible gene of similar length. Both AIG1 and FAR-17a contain two polyadenylation signals, but exhibit two different lengths of mRNA transcripts.

REFERENCES

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2. Seo, J., et al. 2001. Cloning of androgen-inducible gene 1 (AIG1) from human dermal papilla cells. Mol. Cell 11: 35-40.
3. Rutberg, S.E., et al. 2006. Differences in expression of specific biomarkers distinguish human beard from scalp dermal papilla cells. J. Invest. Dermatol. 126: 2583-2595.
4. Elsamman, E., et al. 2006. Differences in gene expression between noninvasive and invasive transitional cell carcinoma of the human bladder using complementary deoxyribonucleic acid microarray: preliminary results. Urol. Oncol. 24: 109-115.
5. Antoshechkin, A., et al. 2007. Analysis of effects of the herbal preparation Circulat on gene expression levels in cultured human fibroblasts. Phytother. Res. 21: 777-789.
6. Hur, K., et al. 2010. Gene expression profiling of human gastrointestinal stromal tumors according to its malignant potential. Dig. Dis. Sci. 55: 2561-2567.
7. SWISS-PROT/TrEMBL (Q9NVV5). World Wide Web URL: http://www.uniprot.org/uniprot/Q9NVV5

CHROMOSOMAL LOCATION

Genetic locus: AIG1 (human) mapping to 6q24.2.

PRODUCT

AIG1 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 AIG1 shRNA Plasmid (h): sc-95273-SH and AIG1 shRNA (h) Lentiviral Particles: sc-95273-V as alternate gene silencing products.

For independent verification of AIG1 (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-95273A, sc-95273B and sc-95273C.

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

AIG1 siRNA (h) is recommended for the inhibition of AIG1 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 AIG1 gene expression knockdown using RT-PCR Primer: AIG1 (h)-PR: sc-95273-PR (20 µl). 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.

PROTOCOLS

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