SANTA CRUZ BIOTECHNOLOGY, INC.

APRIN siRNA (m): sc-61985

BACKGROUND

APRIN (androgen-induced proliferation inhibitor), also known as androgen shut-off 3 (AS3) or PDS5 regulator of cohesion maintenance homolog B (PDS5B), is required for androgen-dependent growth arrest in prostate cells. It mediates the androgen regulated cell cycle arrest in the G_0/G_1 phase of prostate epithelial cells. APRIN is a highly conserved protein containing a nuclear localization sequence near the C-terminal, a DNA binding domain, a coiled-coil domain, a leucine zipper and a protein kinase domain. It is expressed in smooth muscle stromal cells and basal and luminal epithelial cells, localizing to the nucleus. APRIN is related to the fungal proteins *Aspergillus* bimD and *Sordaria* Spo76p. APRIN may also function as a transcription factor and protein kinase. A loss of the gene encoding APRIN strongly correlates with prostate cancer.

REFERENCES

1. Geck, P., Szelei, J., Jimenez, J., Sonnenschein, C. and Soto, A.M. 1999. Early gene expression during androgen-induced inhibition of proliferation of prostate cancer cells: a new suppressor candidate on chromosome 13, in the BRCA2-Rb1 locus. J. Steroid Biochem. Mol. Biol. 68: 41-50.
2. van Heemst, D., James, F., Pöggeler, S., Berteaux-Lecellier, V. and Zickler, D. 1999. Spo76p is a conserved chromosome morphogenesis protein that links the mitotic and meiotic programs. Cell 98: 261-271.
3. Geck, P., Maffini, M.V., Szelei, J., Sonnenschein, C. and Soto, A.M. 2000. Androgen-induced proliferative quiescence in prostate cancer cells: the role of AS3 as its mediator. Proc. Natl. Acad. Sci. USA 97: 10185-10190.
4. Harada, H., Uchida, N., Shimada, Y., Kumimoto, H., Shinoda, M., Imamura, M. and Ishizaki, K. 2001. Polymorphism and allelic loss at the AS3 locus on 13q12-13 in esophageal squamous cell carcinoma. Int. J. Oncol. 18: 1003-1007.

CHROMOSOMAL LOCATION

Genetic locus: Pds5b (mouse) mapping to 5 G3.

PRODUCT

APRIN siRNA (m) 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 APRIN shRNA Plasmid (m): sc-61985-SH and APRIN shRNA (m) Lentiviral Particles: sc-61985-V as alternate gene silencing products.

For independent verification of APRIN (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-61985A, sc-61985B and sc-61985C.

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

APRIN siRNA (m) is recommended for the inhibition of APRIN 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.

GENE EXPRESSION MONITORING

APRIN (F-9): sc-518248 is recommended as a control antibody for monitoring of APRIN 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor APRIN gene expression knockdown using RT-PCR Primer: APRIN (m)-PR: sc-61985-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.