SANTA CRUZ BIOTECHNOLOGY, INC.

tetranectin siRNA (m): sc-61676

BACKGROUND

Tetranectin is a homotrimeric glycoprotein present in plasma and various tissue locations that binds to calcium, heparin, and plasminogen kringle 4. Tetranectin may play a prominent role in tissue remodeling as well as in the regulation of proteolytic processes via its binding and indirect activation of plasminogen. Tetranectin is found in the extracellular matrix (ECM) of certain carcinomas, but is not present in the ECM of normal tissues. Extracellular proteolysis is an important factor in the ability of malignant cells to penetrate normal tissues and metastasize. Decreased plasma tetranectin or increased tetranectin in stroma of cancers correlates with cancer progression and a grim prognosis. Tetranectin may also influence cancer growth by altering activities of plasminogen or the plasminogen fragment, angiostatin which inhibits tumor cell proliferation.

REFERENCES

1. Holtet, T.L., et al. 1997. Tetranectin, a trimeric plasminogen-binding C-type lectin. Protein Sci. 6: 1511-1515.
2. Thougaard, A.V., et al. 1998. Determination of serum tetranectin: technical and clinical evaluation of three sandwich immunoassays. Clin. Chim. Acta 276: 19-34.
3. Hogdall, CK. 1999. Human tetranectin: methodological and clinical studies. APMIS Suppl. 86: 1-31.
4. Kamper, E.F., et al. 1999. Serum levels of tetranectin, intercellular adhesion molecule-1 and interleukin-10 in B-chronic lymphocytic leukemia. Clin. Biochem. 32: 639-645.
5. Lorentsen, R.H., et al. 2000. The heparin-binding site in tetranectin is located in the N-terminal region and binding does not involve the carbohydrate recognition domain. Biochem. J. 347: 83-87.
6. Caterer, N.R., et al. 2002. Specificity determinants in the interaction of apolipoprotein A kringles with tetranectin and LDL. Biol. Chem. 383: 1743-1750.
7. Nielbo, S., et al. 2004. Structure of the plasminogen kringle 4 binding calcium-free form of the C-type lectin-like domain of tetranectin. Biochemistry 43: 8636-8643.

CHROMOSOMAL LOCATION

Genetic locus: Clec3b (mouse) mapping to 9 F4.

PRODUCT

tetranectin 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 tetranectin shRNA Plasmid (m): sc-61676-SH and tetranectin shRNA (m) Lentiviral Particles: sc-61676-V as alternate gene silencing products.

For independent verification of tetranectin (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-61676A, sc-61676B and sc-61676C.

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

tetranectin siRNA (m) is recommended for the inhibition of tetranectin 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

tetranectin (F-8): sc-376940 is recommended as a control antibody for monitoring of tetranectin 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 tetranectin gene expression knockdown using RT-PCR Primer: tetranectin (m)-PR: sc-61676-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.