SANTA CRUZ BIOTECHNOLOGY, INC.

PXDN siRNA (h): sc-270608

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The Power to Question

BACKGROUND

PXDN Antibody (2C11) is a high quality monoclonal PXDN antibody (also designated PXDN antibody) suitable for the detection of the PXDN protein of human origin. PXDN Antibody (2C11) is available as the non-conjugated anti-PXDN antibody. PXDN (peroxidasin homolog), also known as PXN, VPO (vascular peroxidase 1), PRG2 (p53-responsive gene 2 protein) or MG50 (melanoma-associated gene 50), is a 1,479 amino acid secreted protein that is highly expressed in heart, lung, ovary, spleen, intestine and placenta, and lowly expressed in liver, colon, pancreas, kidney, thymus, skeletal muscle and prostate. Belonging to the peroxidase family and the XPO subfamily, PXDN is suggested to participate in extracellular matrix formation. PXDN consists of four Ig-like C2-type (immunoglobulin-like) domains, four LRR (leucine-rich repeats), one LRRCT domain, one LRRNT domain and a VWFC domain. PXDN may exist as two alternatively isoforms and as a homotrimer with a unique hybrid structure that combines an enzymatically functional peroxidase domain with motifs that are typically found in extracellular matrix-associated proteins.

REFERENCES

1. Weiler, S.R., et al. 1994. Assignment of a human melanoma associated gene PXDN (D2S448) to chromosome 2p25.3 by fluorescence *in situ* hybridization. Genomics 22: 243-244.
2. Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. DNA Res. 3: 321-329, 341.
3. Horikoshi, N., et al. 1999. Isolation of differentially expressed cDNAs from p53-dependent apoptotic cells: activation of the human homologue of the *Drosophila* peroxidasin gene. Biochem. Biophys. Res. Commun. 261: 864-869.
4. Mitchell, M.S., et al. 2000. A novel melanoma gene (PXDN) encoding the interleukin 1 receptor antagonist and six epitopes recognized by human cytolytic T lymphocytes. Cancer Res. 60: 6448-6456.
5. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605158. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: PXDN (human) mapping to 2p25.3.

PRODUCT

PXDN 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 PXDN shRNA Plasmid (h): sc-270608-SH and PXDN shRNA (h) Lentiviral Particles: sc-270608-V as alternate gene silencing products.

For independent verification of PXDN (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-270608A, sc-270608B and sc-270608C.

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

PXDN siRNA (h) is recommended for the inhibition of PXDN 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

PXDN (2C11): sc-293408 is recommended as a control antibody for monitoring of PXDN 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 PXDN gene expression knockdown using RT-PCR Primer: PXDN (h)-PR: sc-270608-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.