

PYROXD1 siRNA (h): sc-95953

BACKGROUND

PYROXD1 (pyridine nucleotide-disulfide oxidoreductase domain-containing protein 1) is a 500 amino acid protein that belongs to the class-I pyridine nucleotide-disulfide oxidoreductase family and the PYROXD1 subfamily. The PYROXD1 gene codes for the pyridine nucleotide-disulphide oxidoreductase domain, a domain found among proteins involved in disulphide bond formation. It has been suggested that cytoplasmic CysRS and PYROXD1 are highly associated with cell surface NIS protein in breast cancer. Both of these proteins have been found to be not only highly correlated with cell surface NIS protein among tumors, but are also found to be differentially regulated between cell surface NIS-positive and cell surface NIS-negative breast tumors. PYROXD1 binds one FAD per subunit. The PYROXD1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito and *C. elegans*, and maps to human chromosome 12p12.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PYROXD1 (human) mapping to 12p12.1.

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.

PRODUCT

PYROXD1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PYROXD1 shRNA Plasmid (h): sc-95953-SH and PYROXD1 shRNA (h) Lentiviral Particles: sc-95953-V as alternate gene silencing products.

For independent verification of PYROXD1 (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-95953A, sc-95953B and sc-95953C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PYROXD1 siRNA (h) is recommended for the inhibition of PYROXD1 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 μ M in 66 μ l. 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 PYROXD1 gene expression knockdown using RT-PCR Primer: PYROXD1 (h)-PR: sc-95953-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.