



PSD siRNA (h): sc-90561

BACKGROUND

PSD (pleckstrin and Sec7 domain containing), also known as TYL or PSD1, is a 1,024 amino acid cell membrane protein that belongs to the PSD family. Containing a PH domain and a SEC7 domain, PSD is considered a guanine nucleotide exchange factor for ARF6 and induces cytoskeletal remodeling. Proteins containing pleckstrin homology domains, which consist of approximately 120 amino acids, are known to be involved in intracellular signaling or as constituents of the cytoskeleton. The gene encoding PSD is located on human chromosome 19, which consists of approximately 63 million bases and makes up over 2% of human genomic DNA. Chromosome 19 is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a variety of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

REFERENCES

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2. Musacchio, A., et al. 1993. The PH domain: a common piece in the structural patchwork of signalling proteins. *Trends Biochem. Sci.* 18: 343-348.
3. Gibson, T.J., et al. 1994. PH domain: the first anniversary. *Trends Biochem. Sci.* 19: 349-353.
4. Ingley, E., et al. 1994. Pleckstrin homology (PH) domains in signal transduction. *J. Cell. Biochem.* 56: 436-443.
5. Saraste, M., et al. 1995. Pleckstrin homology domains: a fact file. *Curr. Opin. Struct. Biol.* 5: 403-408.
6. Pawson, T. 1995. Protein modules and signalling networks. *Nature* 373: 573-580.
7. Leeb, T., et al. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. *Gene* 343: 239-244.

CHROMOSOMAL LOCATION

Genetic locus: PSD (human) mapping to 10q24.32.

PRODUCT

PSD 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 PSD shRNA Plasmid (h): sc-90561-SH and PSD shRNA (h) Lentiviral Particles: sc-90561-V as alternate gene silencing products.

For independent verification of PSD (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-90561A, sc-90561B and sc-90561C.

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 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

PSD siRNA (h) is recommended for the inhibition of PSD 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 PSD gene expression knockdown using RT-PCR Primer: PSD (h)-PR: sc-90561-PR (20 μ l). 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.