SANTA CRUZ BIOTECHNOLOGY, INC.

# PEAR1 siRNA (h): sc-88802

## BACKGROUND

PEAR1 (platelet endothelial aggregation receptor 1), also known as JEDI or MEGF12 (multiple epidermal growth factor-like domains protein 12), is a 1,037 amino acid single-pass membrane protein belonging to the MEGF family. Containing nine EGF-like domains and one EMI domain, PEAR1 functions as a platelet receptor that signals during platelet-platelet contact, independent of platelet activation and secondary to platelet aggregation. Encoded by a gene that maps to human chromosome 1q23.1, PEAR1 is expressed in heart, kidney, skeletal muscle, pancreas, ovary, breast, lung, brain cortex, hypothalamus, spinal cord, dorsal root ganglion, endothelial cells of umbilical cord artery and vein, megakaryocytes, osteoblasts, coronary muscle and erythroid cells, with weak expression in peripheral blood leukocytes and macrophages. Overexpression of PEAR1 reduces both early and late non-adherent myeloid progenitor cell numbers. PEAR1 may also be tyrosine phosphorylated by c-Src, subsequently associating with both Shc and Sck.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: PEAR1 (human) mapping to 1q23.1.

## PRODUCT

PEAR1 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 PEAR1 shRNA Plasmid (h): sc-88802-SH and PEAR1 shRNA (h) Lentiviral Particles: sc-88802-V as alternate gene silencing products.

For independent verification of PEAR1 (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-88802A, sc-88802B and sc-88802C.

## 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

PEAR1 siRNA (h) is recommended for the inhibition of PEAR1 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PEAR1 gene expression knockdown using RT-PCR Primer: PEAR1 (h)-PR: sc-88802-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.