SANTA CRUZ BIOTECHNOLOGY, INC.

PILR-β siRNA (h): sc-89579

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The Power to Question

BACKGROUND

Cell signaling pathways are mediated by the interaction between activating and inhibiting processes which are generally regulated by an activating/inhibiting receptor pair. PILR-β (paired immunoglobin-like type 2 receptor β), also known as FDFACT, is a 227 amino acid single-pass type I membrane protein that contains one Ig-like V-type (immunoglobulin-like) domain. Existing as multiple alternatively spliced isoforms, PILR-β acts as the non-ITIM-bearing activating member of the PILR-α/PILR-β receptor pair and functions to activate cell signaling cascades that involve adaptor molecules on the cell surface. The gene encoding both PILR-α and PILR-β are in a tandem head-to-tail orientation on human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome.

REFERENCES

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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: PILRB (human) mapping to 7q22.1.

PRODUCT

PILR-β 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 PILR-β shRNA Plasmid (h): sc-89579-SH and PILR-β shRNA (h) Lentiviral Particles: sc-89579-V as alternate gene silencing products.

For independent verification of PILR-β (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-89579A, sc-89579B and sc-89579C.

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

PILR-β siRNA (h) is recommended for the inhibition of PILR-β 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 PILR-β gene expression knockdown using RT-PCR Primer: PILR-β (h)-PR: sc-89579-PR (20 µl, 576 bp). 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.