

Pdcd2L siRNA (h): sc-97629

BACKGROUND

Pdcd-1 (programmed cell death-1 protein) is a type I transmembrane receptor and a member of the immunoglobulin gene superfamily. Expression of Pdcd-1 is detected in mouse thymus, and it is induced in stimulated B and T cell lines, where it may play a role in the negative regulation of various immune responses. Pdcd-2 (programmed cell death-2), also known as PD-2, PDL2 or B7DC, is highly expressed in placenta, heart, pancreas, lung and liver, and lowly expressed in spleen, lymph nodes and thymus. Pdcd2L (programmed cell death 2-like), also known as MGC13096, is a 358 amino acid protein that is similar to Pdcd-2 and may play a role in apoptosis.

REFERENCES

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2. Agata, Y., et al. 1996. Expression of the PD-1 antigen on the surface of stimulated mouse T and B lymphocytes. *Int. Immunol.* 8: 765-772.
3. Park, E.J., et al. 1999. Characterization of a novel mouse cDNA, ES18, involved in apoptotic cell death of T-cells. *Nucleic Acids Res.* 27: 1524-1530.
4. Li, W., et al. 2000. Increased expression of apoptosis-linked gene 2 (ALG2) in the rat brain after temporary focal cerebral ischemia. *Neuroscience* 96: 161-168.
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7. Chen, Q., et al. 2005. Cloning of cDNAs with PDCD2(C) domain and their expressions during apoptosis of HEK293T cells. *Mol. Cell. Biochem.* 280: 185-191.
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CHROMOSOMAL LOCATION

Genetic locus: PDCD2L (human) mapping to 19q13.11.

PRODUCT

Pdcd2L 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 Pdcd2L shRNA Plasmid (h): sc-97629-SH and Pdcd2L shRNA (h) Lentiviral Particles: sc-97629-V as alternate gene silencing products.

For independent verification of Pdcd2L (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-97629A, sc-97629B and sc-97629C.

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

Pdcd2L siRNA (h) is recommended for the inhibition of Pdcd2L 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.

GENE EXPRESSION MONITORING

Pdcd2L (K-13): sc-101251 is recommended as a control antibody for monitoring of Pdcd2L 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 Pdcd2L gene expression knockdown using RT-PCR Primer: Pdcd2L (h)-PR: sc-97629-PR (20 μ l, 587 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.

PROTOCOLS

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