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IL-18R shRNA (h) Lentiviral Particles: sc-45285-V

BACKGROUND

Interleukin-18 (IL-18) has been identified as a molecule that induces IFN- γ production and enhances NK cell cytotoxicity. IL-18 receptor (IL-18R) is a type I membrane protein present in lung, leukocytes, spleen, liver, thymus, prostate, small intestine, colon, placenta and heart, while absent from brain, skeletal muscle, pancreas and kidney. IL-18R is present in Hodgkin's disease cell lines, and does not bind IL-1 α or IL-1 β . The association of IL-18 to IL-18R leads to activation of NF κ B. At present two subunits of IL-18R have been characterized: IL-18R α and IL-18R β . IL-18R α has been described as the ligand-binding chain and IL-18R β as the signal-transduction chain.

REFERENCES

1. Torigoe, K., Ushio, S., Okura, T., Kobayashi, S., Tani, M., Kunikata, T., Murakami, T., Sanou, O., Kojima, H., Fujii, M., Ohta, T., Ikeda, M., Ikegami, H. and Kurimoto, M. 1997. Purification and characterization of the human interleukin-18 receptor. *J. Biol. Chem.* 272: 25737-25742.
2. Strand, M.L., Wahlgren, A., Svechnikov, K., Zetterström, C., Setchell, B.P. and Söder, O. 2005. Interleukin-18 is expressed in rat testis and may promote germ cell growth. *Mol. Cell. Endocrinol.* 240: 64-73.
3. Vermot-Desroches, C., Subiger, O., Guenot, F., Sergent, E., Bonnin, B. and Wijdenes, J. 2005. Monoclonal antibodies specific for the IL-18 receptor. *Cell. Immunol.* 236: 101-104.
4. Zhou, Y., Yamaguchi, E., Fukui, Y., Konno, S., Maeda, Y., Kimata, K. and Nishimura, M. 2005. Enhanced expression of interleukin-18 receptor α chain by CD4⁺ T cells in sarcoidosis. *Chest* 128: 2497-2503.
5. Krasna E, Kolesár, L., Slavcev, A., Valhová, S., Kronosová, B., Jaresová, M. and Stríž, I. 2005. IL-18 receptor expression on epithelial cells is upregulated by TNF α . *Inflammation* 29: 33-37.
6. Asakawa, M., Kono, H., Amemiya, H., Matsuda, M., Suzuki, T., Maki, A. and Fujii, H. 2006. Role of interleukin-18 and its receptor in hepatocellular carcinoma associated with hepatitis C virus infection. *Int. J. Cancer* 118: 564-570.

CHROMOSOMAL LOCATION

Genetic locus: IL18R1 (human) mapping to 2q12.1.

PRODUCT

IL-18R shRNA (h) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 μ l frozen stock containing 1.0×10^6 infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see IL-18R siRNA (h): sc-45285 and IL-18R shRNA Plasmid (h): sc-45285-SH as alternate gene silencing products.

STORAGE

Store lentiviral particles at -80° C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4° C for up to one week. Avoid repeated freeze thaw cycles.

APPLICATIONS

IL-18R shRNA (h) Lentiviral Particles is recommended for the inhibition of IL-18R expression in human cells.

SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 μ l frozen viral stock containing 1.0×10^6 infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

GENE EXPRESSION MONITORING

IL-18R (H-270): sc-50519 is recommended as a control antibody for monitoring of IL-18R 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 (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IL-18R gene expression knockdown using RT-PCR Primer: IL-18R (h)-PR: sc-45285-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

BIOSAFETY

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

RESEARCH USE

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

PROTOCOLS

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