SANTA CRUZ BIOTECHNOLOGY, INC.

ILDR1 siRNA (h): sc-78149

BACKGROUND

Ig (immunoglobulin) superfamily members exhibit functional characteristics including immune responses, growth factor signaling and cell adhesion. ILDR1 (Ig-like domain containing receptor 1) is a 546 amino acid protein that belongs to the Lisch7 family and to the Ig superfamily. ILDR1 is abundantly expressed in prostate and is also expressed in testis, pancreas, kidney, heart and liver, and exists as six isoforms. ILDR1 is a single-pass type 1 membrane protein that is localized to either the cell membrane or to the cytoplasm in an isoform-dependent fashion, with isoform 5 exhibiting specifically cytoplasmic localization. ILDR1 functions as a membrane receptor and its isoforms, when co-expressed, are thought to be able to translocate a cytoplasmic isoform to the cellular membrane, creating multimerization of receptors. A cytoplasmic isoform of ILDR1 has been detected in lymphomas, but not in normal tissue samples, suggesting that the cytoplasmic isoform may be involved in the transformation of lymphocytes to lymphomas.

REFERENCES

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2. Barclay, A.N. 2003. Membrane proteins with immunoglobulin-like domains—a master superfamily of interaction molecules. Semin. Immunol. 15: 215-223.
3. Hauge, H., et al. 2004. Characterization of a novel immunoglobulin-like domain containing receptor. Biochem. Biophys. Res. Commun. 323: 970-978.
4. Peggs, K.S. and Allison, J.P. 2005. Co-stimulatory pathways in lymphocyte regulation: the immunoglobulin superfamily. Br. J. Haematol. 130: 809-824.
5. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609739. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: ILDR1 (human) mapping to 3q13.33.

PRODUCT

ILDR1 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 ILDR1 shRNA Plasmid (h): sc-78149-SH and ILDR1 shRNA (h) Lentiviral Particles: sc-78149-V as alternate gene silencing products.

For independent verification of ILDR1 (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-78149A, sc-78149B and sc-78149C.

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

ILDR1 siRNA (h) is recommended for the inhibition of ILDR1 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 ILDR1 gene expression knockdown using RT-PCR Primer: ILDR1 (h)-PR: sc-78149-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.