

IL-1R8 siRNA (h): sc-91336

BACKGROUND

IL-1R8, also known as X-linked interleukin-1 receptor accessory protein-like 1 (IL1RAPL1), oligophrenin-4 or three immunoglobulin domain-containing IL-1 receptor-related 2 (TIGIRR-2), is a member of the interleukin-1/toll-like receptor family predominantly expressed in brain and heart. It is a single-pass transmembrane protein with a highly conserved cytoplasmic region that is slightly longer than that of other family members. IL-1R8 is highly homologous to IL-1R9 and the IL-1 accessory protein receptor chains. The genes encoding IL-1R8 and IL-1R9 are both found on the X chromosome. IL-1R8 may interact with NCS-1 and, via this interaction, may be involved in the regulation of exocytosis and synaptic transmission. A truncating mutation in IL-1R8, possibly disrupting the activity of N-type voltage-gated calcium channels or NCS-1 dependent neuronal activity, results in non-syndromic mental retardation X-linked type 21 or MRX21.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: IL1RAPL1 (human) mapping to Xp21.3.

PRODUCT

IL-1R8 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 IL-1R8 shRNA Plasmid (h): sc-91336-SH and IL-1R8 shRNA (h) Lentiviral Particles: sc-91336-V as alternate gene silencing products.

For independent verification of IL-1R8 (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-91336A, sc-91336B and sc-91336C.

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

IL-1R8 siRNA (h) is recommended for the inhibition of IL-1R8 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IL-1R8 gene expression knockdown using RT-PCR Primer: IL-1R8 (h)-PR: sc-91336-PR (20 μ l). 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.