SANTA CRUZ BIOTECHNOLOGY, INC.

IL-1R9 siRNA (m): sc-146214

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The Power to Question

BACKGROUND

IL-1R9, also known as X-linked interleukin-1 receptor accessory protein-like 2 (IL1RAPL-2) or three immunoglobulin domain-containing IL-1 receptor-related 1 (TIGIRR-1), is a member of the interleukin-1/Toll-like receptor family expressed in fetal brain. It is a single pass transmembrane protein with a highly conserved cytoplasmic region that is slightly longer than that of other family members. IL-1R9 is highly homologous to IL-1R8 and the IL-1 accessory protein receptor chains. The genes encoding IL-1R9 and IL-1R8 are both found on the X-chromosome in the region associated with X-linked non-syndromic mental retardation. Unlike other family members, IL-1R9 and IL-1R8 do not activate NFκB.

REFERENCES

1. Jin, H., et al. 2000. Two novel members of the interleukin-1 receptor gene family, one deleted in Xp22.1-Xp21.3 mental retardation. Eur. J. Hum. Genet. 8: 87-94.
2. Born, T.L., et al. 2000. Identification and characterization of two members of a novel class of the interleukin-1 receptor (IL-1R) family. Delineation of a new class of IL-1R-related proteins based on signaling. J. Biol. Chem. 275: 29946-29954.
3. Ferrante, M.I., et al. 2001. IL1RAPL2 maps to Xq and is specifically expressed in the central nervous system. Gene. 275: 217-221.
4. Sana, T.R., et al. 2001. Computational identification, cloning, and characterization of IL-1R9, a novel interleukin-1 receptor-like gene encoded over an unusually large interval of human chromosome Xq22.2-q22.3. Genomics 69: 252-262.
5. Towne, J.E., et al. 2004. Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NFκB and MAPKs. J. Biol. Chem. 279: 13677-13688.

CHROMOSOMAL LOCATION

Genetic locus: Il1rapl2 (mouse) mapping to X F1.

PRODUCT

IL-1R9 siRNA (m) 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 IL-1R9 shRNA Plasmid (m): sc-146214-SH and IL-1R9 shRNA (m) Lentiviral Particles: sc-146214-V as alternate gene silencing products.

For independent verification of IL-1R9 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-146214A, sc-146214B and sc-146214C.

PROTOCOLS

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

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

IL-1R9 siRNA (m) is recommended for the inhibition of IL-1R9 expression in mouse 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 IL-1R9 gene expression knockdown using RT-PCR Primer: IL-1R9 (m)-PR: sc-146214-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.