

XKR9 siRNA (h): sc-77565

BACKGROUND

Kell and XK are two covalently linked plasma membrane proteins that constitute the Kell blood group system, a group of antigens on the surface of red blood cells that are important determinants of blood type and targets for autoimmune or alloimmune diseases. XK is a 444 amino acid protein that spans the membrane ten times and carries the ubiquitous antigen Kx, which determines blood type. The XK (X-linked Kx blood group)-related gene family are homologs of XK. XKR9 (XK, Kell blood group complex subunit-related family, member 9), also known as XRG9, is a 373 amino acid multi-pass membrane protein belonging to the XK family. The gene encoding XRG9 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: XKR9 (human) mapping to 8q13.3.

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.

PRODUCT

XKR9 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 XKR9 shRNA Plasmid (h): sc-77565-SH and XKR9 shRNA (h) Lentiviral Particles: sc-77565-V as alternate gene silencing products.

For independent verification of XKR9 (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-77565A, sc-77565B and sc-77565C.

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

XKR9 siRNA (h) is recommended for the inhibition of XKR9 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 XKR9 gene expression knockdown using RT-PCR Primer: XKR9 (h)-PR: sc-77565-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.