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# XKR7 siRNA (m): sc-155376

## 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 10 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. XKR7 (XK-related protein 7) is a 579 amino acid multi-pass membrane protein that likely is a component of the XK/Kell complex of the Kell blood group system. The gene encoding XKR7 maps to human chromosome 20, which comprises approximately 2% of the human genome. Chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Xkr7 (mouse) mapping to 2 H1.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## RODUCT

XKR7 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see XKR7 shRNA Plasmid (m): sc-155376-SH and XKR7 shRNA (m) Lentiviral Particles: sc-155376-V as alternate gene silencing 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

XKR7 siRNA (m) is recommended for the inhibition of XKR7 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  $\mu$ M in 66  $\mu$ 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 XKR7 gene expression knockdown using RT-PCR Primer: XKR7 (m)-PR: sc-155376-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.