

XKR6 (T-12): sc-87501

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. XKR6 (XK-related protein 6) is a 641 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 XKR6 maps to human chromosome 8, which is made up of nearly 146 million bases and encodes about 800 genes. There are two isoforms of XKR6 that are produced as a result of alternative splicing events.

REFERENCES

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4. Singleton, B.K., et al. 2003. McLeod syndrome resulting from a novel XK mutation. *Br. J. Haematol.* 122: 682-685.
5. Feder, M., et al. 2005. Identification of a new family of putative PD-(D/E)XK nucleases with unusual phylogenomic distribution and a new type of the active site. *BMC Genomics* 6: 21.
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7. Starling, A., et al. 2005. A family with McLeod syndrome and calpainopathy with clinically overlapping diseases. *Neurology* 65: 1832-1833.
8. Zeman, A., et al. 2005. McLeod syndrome: life-long neuropsychiatric disorder due to a novel mutation of the XK gene. *Psychiatric Genetics* 15: 291-293.
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CHROMOSOMAL LOCATION

Genetic locus: XKR6 (human) mapping to 8p23.1; Xkr6 (mouse) mapping to 14 D1.

SOURCE

XKR6 (T-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of XKR6 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87501 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

XKR6 (T-12) is recommended for detection of XKR6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other XKR family members.

XKR6 (T-12) is also recommended for detection of XKR6 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for XKR6 siRNA (h): sc-77652, XKR6 siRNA (m): sc-155375, XKR6 shRNA Plasmid (h): sc-77652-SH, XKR6 shRNA Plasmid (m): sc-155375-SH, XKR6 shRNA (h) Lentiviral Particles: sc-77652-V and XKR6 shRNA (m) Lentiviral Particles: sc-155375-V.

Molecular Weight of XKR6 isoform 1/2: 72/42 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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