

Kell (A-10): sc-377199

BACKGROUND

The KEL (CD238) gene encodes a type II transmembrane endopeptidase, Kell, that shares a consensus sequence with a large family of zinc-dependent endopeptidases. The Kell blood group protein is expressed primarily in the erythroid tissues and testis and with weaker expression in a large number of other tissues such as brain and lymphoid tissues. Immunohistochemistry reveals human Kell protein is localized to the Sertoli cells of the testis and the follicular dendritic cells of the spleen and tonsil. Kell is one of the major human surface antigens on red blood cells where it is linked by a single disulfide bond to XK. The absence of XK, as occurs in the McLeod phenotype, is associated with a set of clinical symptoms that include nerve and muscle disorders and red cell acanthocytosis.

REFERENCES

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3. Camara-Clayette, V., Rahuel, C., Lopez, C., Hattab, C., Verkarre, V., Bertrand, O. and Cartron, J.P. 2001. Transcriptional regulation of the KEL gene and Kell protein expression in erythroid and non-erythroid cells. *Biochem. J.* 356: 171-180.
4. Yu, L.C., Twu, Y.C., Chang, C.Y. and Lin, M. 2001. Molecular basis of the Kell-null phenotype: a mutation at the splice site of human KEL gene abolishes the expression of Kell blood group antigens. *J. Biol. Chem.* 276: 10247-10252.
5. Lee, S., Russo, D.C., Reiner, A.P., Lee, J.H., Sy, M.Y., Telen, M.J., Judd, W.J., Simon, P., Rodrigues, M.J., Chabert, T., Poole, J., Jovanovic-Srzentic, S., Levene, C., Yahalom, V. and Redman, C.M. 2001. Molecular defects underlying the Kell null phenotype. *J. Biol. Chem.* 276: 27281-27289.

CHROMOSOMAL LOCATION

Genetic locus: KEL (human) mapping to 7q34; Kel (mouse) mapping to 6 B2.1.

SOURCE

Kell (A-10) is a mouse monoclonal antibody raised against amino acids 170-269 mapping within an internal region of Kell of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Kell (A-10) is available conjugated to agarose (sc-377199 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377199 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377199 PE), fluorescein (sc-377199 FITC), Alexa Fluor® 488 (sc-377199 AF488), Alexa Fluor® 546 (sc-377199 AF546), Alexa Fluor® 594 (sc-377199 AF594) or Alexa Fluor® 647 (sc-377199 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377199 AF680) or Alexa Fluor® 790 (sc-377199 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Kell (A-10) is recommended for detection of Kell of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Kell siRNA (h): sc-72103, Kell siRNA (m): sc-72104, Kell shRNA Plasmid (h): sc-72103-SH, Kell shRNA Plasmid (m): sc-72104-SH, Kell shRNA (h) Lentiviral Particles: sc-72103-V and Kell shRNA (m) Lentiviral Particles: sc-72104-V.

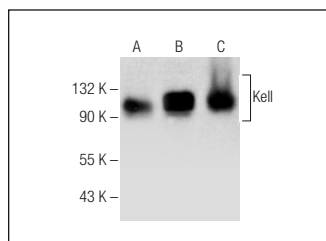
Molecular Weight of Kell: 120 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, MEG-01 cell lysate: sc-2283 or TF-1 cell lysate: sc-2412.

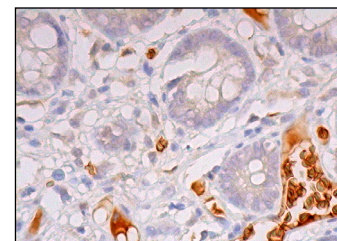
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Kell (A-10): sc-377199. Western blot analysis of Kell expression in HEL 92.1.7 (A), TF-1 (B) and MEG-01 (C) whole cell lysates.



Kell (A-10): sc-377199. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing membrane staining of erythrocytes.

STORAGE

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

RESEARCH USE

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

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