XPLAC (D-18): sc-50204

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

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. XK also plays a role in the sodium-dependent membrane transport of oligopeptides and neutral amino acids. XPLAC is a 462 amino acid member of the XK family that is expressed mostly in placenta and adrenal gland. The XPLAC gene is located on the X chromosome at position q22.1.

REFERENCES

1. Lee, S., Russo, D.C., Pu, J., Ho, M. and Redman, C.M. 2000. The mouse Kell blood group gene (Kel): cDNA sequence, genomic organization, expression, and enzymatic function. Immunogenetics 52: 53-62.

2. Russo, D., Wu, X., Redman, C.M. and Lee, S. 2000. Expression of Kell blood group protein in nonerythroid tissues. Blood 96: 340-346.

3. Feder, M. and Bujnicki, J.M. 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.

4. He, Y., Tabibi, S.E. and Yalkowsky, S.H. 2005. Solubilization of two structurally related anticancer drugs: XK-469 and PPA. J. Pharm. Sci. 95: 97-107.

5. Renzetti, G., Villani, A., Bizzarri, C., Chessa, L., Vignati, E., Gianotti, A., Cappa, M., Szakacs, J., Townsend, J.J., Miller, ME., Opitz, J.M., Kennedy, A.M. and Byrne, J.L. 2005. XK-aprosencephaly and related entities. Am. J. Med. Genet. 138: 401-410.

6. Calenda, G., Peng, J., Redman, C.M., Sha, Q., Wu, X. and Lee, S. 2006. Identification of two new members, XPLAC and XTES, of the XK family. Gene 370: 6-16.

CHROMOSOMAL LOCATION

Genetic locus: XKRX (human) mapping to Xq22.1; Xkrx (mouse) mapping to X E3.

SOURCE

XPLAC (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of XPLAC of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50204 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

XPLAC (D-18) is recommended for detection of XPLAC 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).

XPLAC (D-18) is also recommended for detection of XPLAC in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for XPLAC siRNA (h): sc-61809, XPLAC siRNA (m): sc-61810, XPLAC shRNA Plasmid (h): sc-61809-SH, XPLAC shRNA Plasmid (m): sc-61810-SH, XPLAC shRNA (h) Lentiviral Particles: sc-61809-V and XPLAC shRNA (m) Lentiviral Particles: sc-61810-V.

Molecular Weight of XPLAC: 53.6 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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