SANTA CRUZ BIOTECHNOLOGY, INC.

JRKL (K-16): sc-168231

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The Power to Question

BACKGROUND

The tigger transposable element derived (TIGD) protein family (whose members include TIGD1, TIGD2, TIGD3, TIGD4, TIGD5, TIGD6, TIGD7, JRKL and JRK) is a subfamily of the DNA-mediated transposons superfamily. While the exact function of tigger subfamily proteins is unknown, all tigger subfamily proteins contain a DDE domain and an HTH CENPB-type DNA-binding domain, indicating a possible DNA-binding function. JRKL is a 442 amino acid protein with a predicted nuclear localization. JRKL is abundantly expressed in most tissues, with less expression in liver, lung and peripheral blood leukocytes. With 35% homology to mouse JRK protein which causes epileptic seizures in mice when inactivated, JRKL may be biologically significant in the development of epilepsy.

REFERENCES

1. Toth, M., et al. 1995. Epileptic seizures caused by inactivation of a novel gene, jerky, related to centromere binding protein-B in transgenic mice. Nat. Genet. 11: 71-75.
2. Zeng, Z., et al. 1997. Cloning, mapping, and tissue distribution of a human homologue of the mouse jerky gene product. Biochem. Biophys. Res. Commun. 236: 389-395.
3. Morita, R., et al. 1998. JH8, a gene highly homologous to the mouse jerky gene, maps to the region for childhood absence epilepsy on 8q24. Biochem. Biophys. Res. Commun. 248: 307-314.
4. Morita, R., et al. 1999. Exclusion of the JRK/JH8 gene as a candidate for human childhood absence epilepsy mapped on 8q24. Epilepsy Res. 37: 151-158.
5. Moore, T., et al. 2001. Polymorphism analysis of JRK/JH8, the human homologue of mouse jerky, and description of a rare mutation in a case of CAE evolving to JME. Epilepsy Res. 46: 157-167.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603211. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: JRKL (human) mapping to 11q21; Jrkl (mouse) mapping to 9 A1.

SOURCE

JRKL (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of JRKL 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-168231 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-168231 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

JRKL (K-16) is recommended for detection of JRKL 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 JRK.

JRKL (K-16) is also recommended for detection of JRKL in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for JRKL siRNA (h): sc-96749, JRKL shRNA Plasmid (h): sc-96749-SH and JRKL shRNA (h) Lentiviral Particles: sc-96749-V.

JRKL (K-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of JRKL: 51 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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.

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.

PROTOCOLS

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