SANTA CRUZ BIOTECHNOLOGY, INC.

# JRKL (B-4): sc-514721

## 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.


## CHROMOSOMAL LOCATION

Genetic locus: JRKL (human) mapping to 11q21.

## SOURCE

JRKL (B-4) is a mouse monoclonal antibody raised against amino acids 388-445 mapping within an internal region of JRKL of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

JRKL (B-4) is available conjugated to agarose (sc-514721 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514721 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514721 PE), fluorescein (sc-514721 FITC), Alexa Fluor® 488 (sc-514721 AF488), Alexa Fluor® 546 (sc-514721 AF546), Alexa Fluor® 594 (sc-514721 AF594) or Alexa Fluor® 647 (sc-514721 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514721 AF680) or Alexa Fluor® 790 (sc-514721 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

JRKL (B-4) is recommended for detection of JRKL of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

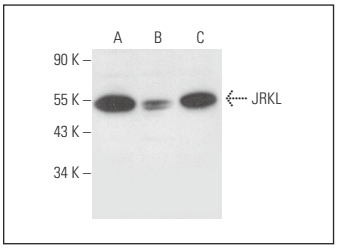
Molecular Weight of JRKL: 51 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or SH-SY5Y cell lysate: sc-3812.

## 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.

## DATA




JRKL (B-4): sc-514721. Western blot analysis of JRKL expression in K-562 (**A**), Jurkat (**B**) and SH-SY5Y (**C**) whole cell lysates.

## 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 for detailed protocols and support products.