

SLITRK3 (K-20): sc-100160

BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic α/β horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. SLITRK3 (SLIT and NTRK-like family, member 3) is a 977 amino acid single-pass type I membrane protein that contains 20 LRR repeats and belongs to the SLITRK family. Expressed at highest levels in cerebral cortex, SLITRK3 is also found in adult and fetal neural tissues and some astrocytic brain tumors. SLITRK3 functions to suppress neurite outgrowth and plays a role in the regulation of neuronal function. SLITRK3 is encoded by a gene that maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 355-364.
2. Aruga, J., et al. 2003. Human SLITRK family genes: genomic organization and expression profiling in normal brain and brain tumor tissue. Gene 315: 87-94.
3. Aruga, J. 2003. SLITRK6 expression profile in the mouse embryo and its relationship to that of NLRR3. Gene Expr. Patterns 3: 727-733.
4. Aruga, J. and Mikoshiba, K. 2003. Identification and characterization of SLITRK, a novel neuronal transmembrane protein family controlling neurite outgrowth. Mol. Cell. Neurosci. 24: 117-129.
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CHROMOSOMAL LOCATION

Genetic locus: SLITRK3 (human) mapping to 3q26.1; Slitrk3 (mouse) mapping to 3 E3.

SOURCE

SLITRK3 (K-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of SLITRK3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-100160 P, (100 μ g 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

SLITRK3 (K-20) is recommended for detection of SLITRK3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other SLITRK family members.

Suitable for use as control antibody for SLITRK3 siRNA (h): sc-78306, SLITRK3 siRNA (m): sc-153596, SLITRK3 shRNA Plasmid (h): sc-78306-SH, SLITRK3 shRNA Plasmid (m): sc-153596-SH, SLITRK3 shRNA (h) Lentiviral Particles: sc-78306-V and SLITRK3 shRNA (m) Lentiviral Particles: sc-153596-V.

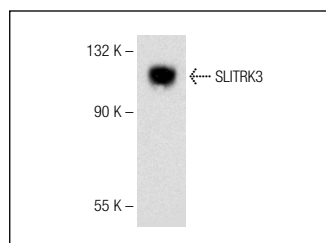
Molecular Weight of SLITRK3: 109 kDa.

Positive controls: HeLa whole cell lysate: sc-2200.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SLITRK3 (K-20): sc-100160. Western blot analysis of SLITRK3 expression in HeLa whole cell lysate.

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.