

SLITRK1 (K-17): sc-49514

BACKGROUND

SLITRK family proteins are integral membrane proteins that have a C-terminal domain that is partially similar to TRK neurotrophin receptor proteins and two leucine-rich repeat (LRR) domains that are similar to those of SLIT proteins. SLIT and NTRK-like protein 1 (SLITRK1) is a 696 amino acid protein that contains 13 LRRs. SLITRK1 enhances neurite outgrowth and is expressed predominantly in the frontal lobe of the cerebral cortex of the brain, but is also expressed in some astrocytic brain tumors such as gangliogliomas, glioblastomas, astrocytomas, oligodendrogliomas and primitive neuroectodermal tumors. In a small percentage of affected individuals, mutations in the SLITRK1 gene may be an indirect cause of Tourette's syndrome (TS), a genetically influenced developmental neuropsychiatric disorder characterized by chronic motor and vocal tics.

REFERENCES

1. Aruga, J., et al. K. 2003. Human SLITRK family genes: genomic organization and expression profiling in normal brain and brain tumor tissue. *Gene* 315: 87-94.
2. Olson, S., et al. 2005. Medicine. Teenager's odd chromosome points to possible Tourette syndrome gene. *Science* 310: 211.
3. Abelson, J.F., et al. 2005. Sequence variants in SLITRK1 are associated with Tourette's syndrome. *Science* 310: 317-320.
4. Burton, A. 2005. SLITRK1 trouble in Tourette's syndrome. *Lancet Neurol.* 4: 801.
5. Grados, M.A., et al. 2006. A new gene for Tourette's syndrome: a window into causal mechanisms? *Trends Genet.* 22: 291-293.

CHROMOSOMAL LOCATION

Genetic locus: SLITRK1 (human) mapping to 13q31.1; Slitrk1 (mouse) mapping to 14 E3.

SOURCE

SLITRK1 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLITRK1 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-49514 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.

PROTOCOLS

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

APPLICATIONS

SLITRK1 (K-17) is recommended for detection of SLITRK1 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).

SLITRK1 (K-17) is also recommended for detection of SLITRK1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SLITRK1 siRNA (h): sc-61561, SLITRK1 siRNA (m): sc-61562, SLITRK1 shRNA Plasmid (h): sc-61561-SH, SLITRK1 shRNA Plasmid (m): sc-61562-SH, SLITRK1 shRNA (h) Lentiviral Particles: sc-61561-V and SLITRK1 shRNA (m) Lentiviral Particles: sc-61562-V.

Molecular Weight of SLITRK1: 78 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.