

# SLITRK1 (H-190): sc-67194

## 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.
6. Deng, H., et al. 2006. Examination of the SLITRK1 gene in Caucasian patients with Tourette syndrome. *Acta Neurol. Scand.* 114: 400-402.
7. Keen-Kim, D., et al. 2006. Overrepresentation of rare variants in a specific ethnic group may confuse interpretation of association analyses. *Hum. Mol. Genet.* 15: 3324-3328.

## CHROMOSOMAL LOCATION

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

## SOURCE

SLITRK1 (H-190) is a rabbit polyclonal antibody raised against amino acids 261-450 mapping within an N-terminal extracellular domain 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.

## STORAGE

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

## APPLICATIONS

SLITRK1 (H-190) 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), 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).

SLITRK1 (H-190) is also recommended for detection of SLITRK1 in additional species, including equine, canine, bovine and porcine.

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.

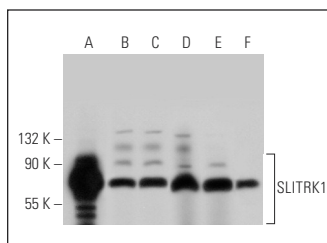
Molecular Weight of SLITRK1: 78 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, mouse brain extract: sc-2253 or mouse cerebellum extract: sc-2403.

## 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



SLITRK1 (H-190): sc-67194. Western blot analysis of SLITRK1 expression in human fetal lung (A), mouse brain (B), human brain (C), human cerebral cortex (D) and mouse cerebellum (E) tissue extracts and SH-SY5Y whole cell lysate (F).

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.