



Slit and NTRK-like Family Detection Set

Cat. No.: PSI-1827



Ψ Specifications

SPECIES REACTIVITY:	Human
IMMUNOGEN:	Rabbit polyclonal antibodies were raised against peptides corresponding to amino acid sequences from each of the corresponding proteins.
TESTED APPLICATIONS:	IF, IHC, WB
APPLICATIONS:	These polyclonal antibodies can be used for detection of Slitrk1, Slitrk2, Slitrk3, Slitrk4, Slitrk5, and Slitrk6 by immunoblot at 0.5 - 2 µg/mL. They can also be used to detect their respective proteins via immunohistochemistry at 2.5 - 5 µg/mL, and Immunofluorescence.
POSITIVE CONTROL:	1) 3T3 Cell Lysate, Catalog No. 1282 Human Brain Tissue Lysate, CatalogNo. 1303 Mouse Brain Tissue Lysate, CatalogNo. 1303 Rat Brain Tissue Lysate, Catalog No. 1303

Ψ Properties

PURIFICATION:	Antibodies are supplied as affinity chromatography purified IgG.
PHYSICAL STATE:	Liquid
BUFFER:	PBS containing 0.02% sodium azide.

CONCENTRATION:	Antibody 1 mg/mL
STORAGE CONDITIONS:	Stable at 4 °C for three months, store at -20 °C for up to one year.

Ψ Additional Info

USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
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Ψ Background and References

BACKGROUND:	<p>SLIT and NTRK-like proteins comprise a six member protein family consisting of homologous transmembrane proteins (Slitrk1-6) that share two conserved leucine-rich repeat domains in the extracellular domain and have significant homology to Slit, a secreted axonal growth-controlling protein. These proteins are also homologous to trk neurotrophin receptors in their intracellular domains. Expression of Slitrk proteins is highly restricted to neural and brain tumor tissues, but varies within the family. For example, Slitrk1 is expressed primarily in mature neurons and Slitrk2 is expressed primarily in neurons in the ventricular layer of the brain. Overexpression of Slitrk1 in transfected neuronal cells induced unipolar neurites, while expression of the other Slitrk proteins inhibited neurite outgrowth, suggesting that these proteins are involved in the control of neurite outgrowth. Deletion analysis of Slitrk2 indicated that the functional difference between Slitrk2 and Slitrk1 is within their intracellular domains. While Slitrk1 variants have been suggested associated with Tourette's Syndrome, it is thought to play only a minor role if at all.</p> <p>For images please see PDF data sheet</p>
REFERENCES:	<p>1) Aruga J and Mikoshiba K. Identification and characterization of Slitrk, a novel transmembrane protein family controlling neurite outgrowth. <i>Mol. Cell Neurosci.</i> 2003; 24:117-29.</p> <p>2) Aruga J, Yokota N, and Mikoshiba K. Human SLITRK family genes: genomic organization and expression profiling in normal and brain tumor tissue. <i>Gene</i> 2003; 315:87-94.</p> <p>3) Abelson JF, Kwan KY, O'Roak BJ, et al. Sequence variants in SLITRK1 are associated with Tourette's syndrome. <i>Science</i> 2005; 310:317-20.</p> <p>4) Fabbrini G, Pasquini M, Aurilia C, et al. A large Italian family with Gilles de la Tourette syndrome: clinical study and analysis of the SLITRK1 gene. <i>Mov. Disord.</i> 2007; 22:2229-34.</p>

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