

Datasheet for ABIN7043629

anti-SLITRK1 antibody (Extracellular)



[Go to Product page](#)

3 Images

Overview

Quantity:	25 µL
Target:	SLITRK1
Binding Specificity:	AA 383-397, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLITRK1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Slitrk1
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)RDNKIHSIRKSHFVD, corresponding to amino acid residues 383-397 of mouse Slitrk1
Isotype:	IgG
Specificity:	Extracellular, N-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Human - identical, rat - 14,15 amino acid residues identical
Characteristics:	Anti-Slitrk1 (extracellular) Antibody (ABIN7043629, ABIN7045304 and ABIN7045305)) is a highly selective antibody directed against an epitope of the mouse protein. The antibody can be

Product Details

used in western blot and immunohistochemistry applications. The antibody recognizes an extracellular epitope, and can potentially be used for detecting the protein in living cells. It has been designed to recognize Slitrk1 from mouse, human, and rat samples.

Purification: Affinity purified on immobilized antigen.

Grade: KO Validated

Target Details

Target: SLITRK1

Alternative Name: SLITRK1 ([SLITRK1 Products](#))

Background: SLIT and NTRK-like family member 1, Leucine-rich repeat-containing protein 12, LRRC12, Neurites are key morphological features of neurons, and are classified into axons and dendrites. Leucine-rich repeat (LRR) domains are often found in neurite development-controlling proteins. Slitrk proteins are leucine-rich repeat containing transmembrane proteins, parts of which are similar to Slit and neurotrophin receptor. All six members of the Slitrk family, including Slitrk1, contain putative hydrophobic signal sequences and membrane-spanning regions. Slitrk1 is strongly expressed in the subventricular zone of the cerebral cortex, the pyramidal cell layer of the hippocampus and in the thalamus and hypothalamus¹. Slitrk1, can regulate synapse formation between hippocampal neurons. Slitrk1 is enriched in postsynaptic fractions and is localized to excitatory synapses. Overexpression of Slitrk1 in hippocampal neurons increases the number of synaptic contacts on these neurons. Furthermore, decreased expression of Slitrk1 in hippocampal neurons leads to a reduction in the number of excitatory, but not inhibitory, synapses formed in hippocampal neuron cultures. In addition, different leucine rich repeat domains of the extracellular region of Slitrk1 are necessary to mediate interactions with Slitrk binding partners of the LAR receptor protein tyrosine phosphatase family, and to promote dimerization of Slitrk1. In addition, Slitrk1 binds with PSD-95 through its intracellular tail. Thus, through PSD-95, Slitrk1 regulates signaling of NMDA and AMPA receptors².

Alternative names: Slitrk1, SLIT and NTRK-like family member 1, Leucine-rich repeat-containing protein 12, LRRC12

Gene ID: 76965

NCBI Accession: [NM_052910](#)

UniProt: [Q810C1](#)

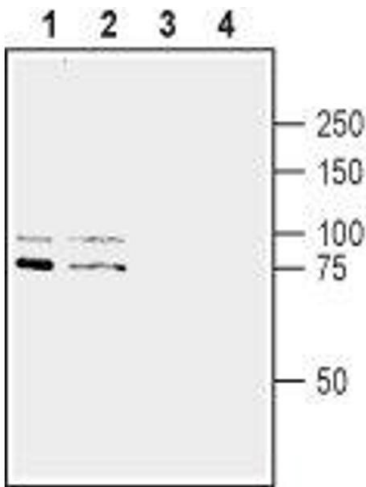
Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:200-1:300 Application Dilutions Western blot wb: 1:200
Comment:	Negative Control: BLP-SR081 Blocking Peptide: BLP-SR081
Restrictions:	For Research Use only

Handling

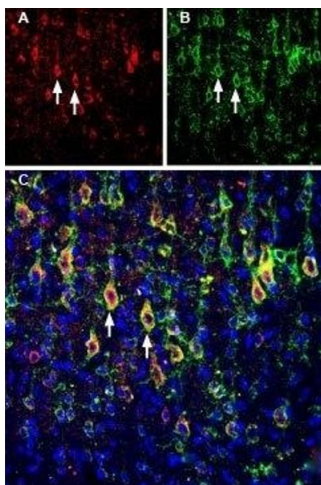
Format:	Lyophilized
Reconstitution:	Reconstitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C, -20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



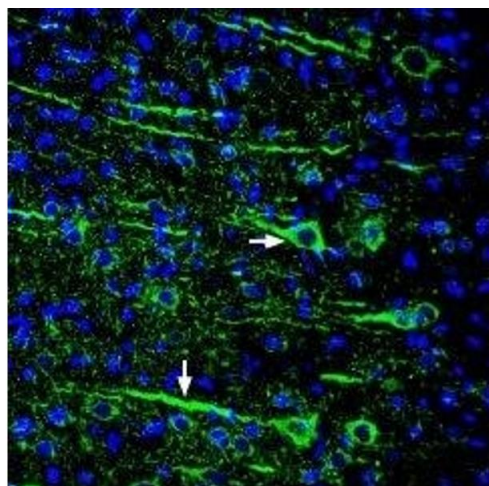
Western Blotting

Image 1. Western blot analysis of rat brain lysate (lanes 1 and 3) and mouse brain synaptosomal fraction (lanes 2 and 4): - 1,2. Anti-Slitrk1 (extracellular) Antibody (ABIN7043629, ABIN7045304 and ABIN7045305), (1:200).3,4. Anti-Slitrk1 (extracellular) Antibody, preincubated with Slitrk1 (extracellular) Blocking Peptide (#BLP-SR081).



Immunohistochemistry

Image 2. Multiplex staining of Slitrk1 and KV2.1 in rat parietal cortex - Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using rabbit Anti-Slitrk1 (extracellular) Antibody (ABIN7043629, ABIN7045304 and ABIN7045305), (1:200) and Guinea pig Anti-KV2.1 Antibody (ABIN7043508, ABIN7045430 and ABIN7045431), (1:200). A. Slitrk1 staining (red) appears in profiles of pyramidal neurons. B. KV2.1 staining (green) is detected in profiles of pyramidal neurons. C. Merge of the two images shows colocalization in several neurons (arrows). Cell nuclei are stained with DAPI (blue).



Immunohistochemistry

Image 3. Expression of Slitrk1 in rat cortex - Immunohistochemical staining of perfusion-fixed frozen rat brain sections using Anti-Slitrk1 (extracellular) Antibody (ABIN7043629, ABIN7045304 and ABIN7045305), (1:300), followed by goat anti-rabbit-AlexaFluor-488. Slitrk1 staining (green) in the rat parieto-temporal cortex is detected in pyramidal neurons (horizontal arrow) and their dendrites (vertical arrow). Cell nuclei are stained with DAPI (blue).