

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived mouse SLITRK2 protein
Arg22-Leu622, with a C-terminal 6-His tag
Accession # Q810C0

N-terminal Sequence Analysis Arg22

Predicted Molecular Mass 69 kDa

SPECIFICATIONS

SDS-PAGE 86-98 kDa, reducing conditions

Activity Bioassay data are not available.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

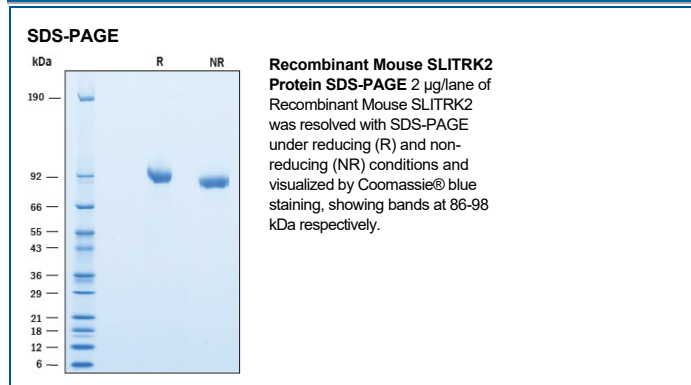
Reconstitution Reconstitute at 250 µg/mL in water.

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, ≤ -20 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, ≤ -20 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

SLITRK2 (Slit and Trk-like family member 2) is an approximately 110 kDa type I transmembrane member of the SLITRK family of proteins which contain a slit-like extracellular region and a Trk-like cytoplasmic region (1). The extracellular domain (ECD) of mature mouse SLITRK2 contains 6 leucine rich repeats (LRR) followed by a C-terminal LRR domain, followed by 6 more LRR flanked by a pair of N- and C-terminal LRR domains (2, 3). Within the ECD, mouse SLITRK2 shares 98% and 99% amino acid sequence identity with human and rat SLITRK2, respectively. SLITRK2 is expressed in multiple regions of the brain, particularly the cerebral cortex and hippocampus (4). It can suppress neurite outgrowth and promote the formation of excitatory and inhibitory presynaptic structures (3-5). The synaptogenic function is dependent on the interaction of SLITRK2 with select isoforms of PTP-sigma (5, 6). In humans, mutations of SLITRK2 are associated with bipolar disorder and schizophrenia (7, 8).

References:

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2. Aruga, J. *et al.* (2003) Gene **315**:87.
3. Aruga, J. and K. Mikoshiba (2003) Mol. Cell. Neurosci. **24**:117.
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5. Takahashi, H. *et al.* (2012) Nat. Neurosci. **15**:389.
6. Yamagata, A. *et al.* (2015) Sci. Rep. **5**:9686.
7. Smith, E.N. *et al.* (2009) Mol. Psychiatry **14**:755.
8. Piton, A. *et al.* (2011) Mol. Psychiatry **16**:867.