Recombinant Mouse SLITRK4 His-tag

Catalog Number: 1811-SK

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse SLITRK4 protein Asp19-Ser618, with a C-terminal 6-His tag Accession # Q810B8
N-terminal Sequence Analysis	Asp19
Predicted Molecular Mass	68 kDa

SPECIFICATIONS

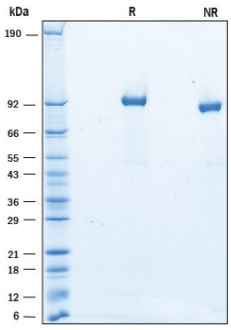
SDS-PAGE	90-100 kDa, reducing conditions
Activity	Measured by its ability to inhibit neurite outgrowth of dissociated E13 chick embryonic dorsal root ganglia (DRG) neurons. Able to significantly inhibit neurite outgrowth when immobilized as a 3 µL droplet containing 200 ng on a nitrocellulose-coated microplate
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, 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 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. 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 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

DATA

SDS-PAGE



2 µg/lane of Recombinant Mouse SLITRK4 was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 90-100 kDa.

BACKGROUND

SLITRK4 is an approximately 90 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). Within the extracellular domain (ECD), the mouse SLITRK4 shares 98% amino acid sequence identity with human SLITRK4. The ECD of SLITRK4 contains 6 leucine rich repeats (LRR) followed by a C-terminal LRR domain, and 6 more LRRs flanked by a pair of N- and C-terminal LRR domains (2, 3). SLITRK4 is expressed in the testis and multiple regions of the brain, particularly the cerebral cortex, cerebellum, and hippocampus (4). SLITRK4 can suppress neurite outgrowth and promote the formation of excitatory presynaptic structures (3, 5). SLITRK genes are also differentially expressed in brain tumors, including astrocytoma, oligodendroglioma, glioblastoma, medulloblastoma, and supratentorial primitive neuroectodermal tumor (PNET) (2).

References:

1. Ko, J. (2012) Mol. Cells **34**:335.
2. Aruga, J. *et al.* (2003) Gene **315**:87.
3. Aruga, J. and K. Mikoshiba (2003) Mol. Cell Neurosci. **24**:117.
4. Yim, Y.S. *et al.* (2013) Proc. Natl. Acad. Sci. USA **110**:4057.
5. Takahashi, H. *et al.* (2012) Nat. Neurosci. **15**:389.

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