Data Sheet (Cat.No.TMPY-00922)

TargetMol

SLITRK1 Protein, Human, Recombinant (His & hFc)

General Information

Synonyms:	KIAA0918;KIAA1910;SLIT and NTRK like family member 1;RP11-395N17.1;FLJ54428;SLITRK1;LRRC12;TTM
Protein Construction:	A DNA sequence encoding the extracellular domain (Met 1-Ser 616) of human SLITRK1 (NP_443142.1) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus. Predicted N terminal: Asn 18
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96PX8
Molecular Weight:	95 kDa (predicted); 130-150 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 100 mM Glycine, 10 mM NaCl, 50 mM Tris, pH 7.5. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

SLITRK1 (Slit and Trk-like family member 1) is a integral membrane protein belonging to the SLITRK family consists of at least 6 members (SLITRK1-6). They are named and characterized by the presence of two leucine-rich repeats (LRRs) in the extracellular domain similar to those found in a secreted axonal growth-controlling protein, Slit, as

well as a C-terminal domain with homology to Trk neurotrophin tyrosine kinase receptors. Expression of SLITRKs are highly restricted to neural tissues, and are identified as the neuronal components modulating the neurite outgrowth. More specifically, SLITRK1 expression is found in the mature neurons of the cerebrum, thalamus and hippocampus, and induces unipolar neurites in cultured neuronal cells. Human SLITRK1 is a 696 amino acid precursor protein, and one truncating frameshift mutation (448 aa) has been linked to Tourette's syndrome, a genetically influenced developmental neuropsychiatric disorder characterized by chronic vocal and motor tics. In addition, all SLITRK genes are differentially expressed in brain tumors, such as astrocytoma, oligodendroglioma, glioblastoma, and are suggested to be useful molecular indicators of brain tumor properties.

Reference

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Abelson, J.F. et al., 2005, Science. 310: 317-320.4.
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