Human SLITRK1 Protein (His & Fc Tag)

Catalog Number: **10340-H03H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

FLJ54428; KIAA0918; KIAA1910; LRRC12; RP11-395N17.1; SLITRK1; TTM; 3200001I04Rik

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.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Asn 18

Molecular Mass:

The recombinant human SLITRK1/Fc chimera is a disulfide-linked homodimeric protein after removal of the signal peptide. The reduced monomer consists of 846 amino acids and predicts a molecular mass of 95 kDa. As a result of glycosylation, the apparent molecular mass of rhSLITRK1/Fc monomer is approximately 130-150 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

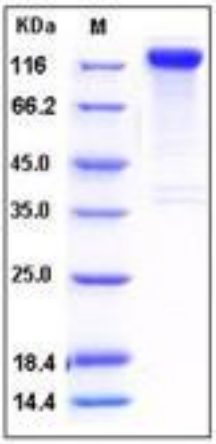
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1. Aruga, J. and Mikoshiba, K. 2003, Mol. Cell. Neurosci. 24: 117-129.
2. Aruga, J. et al., 2003, Gene. 315: 87-94.
3. Abelson, J.F. et al., 2005, Science. 310: 317-320.
4. Grados, M.A. and Walkup. J.T. 2006, Trends. Genet. 22: 291-293.