Active Recombinant Human SLIT3 protein, His-tagged

Cat. No. SLIT3-236H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SLIT3(Leu1117-Ser1523) fused with His tag at C-terminal was expressed in NS0.
Species	Human
Source	Mammalian Cells
ProteinLength	1117-1523 a.a.
Description	Slit3 is an approximately 200 kDa member of the Slit family of large secreted axon guidance molecules that are ligands for ROBO receptors. It contains a mitochondrial targeting sequence and may also be retained intracellularly. Mature human Slit3 consists of 4 cassettes of leucine-rich repeats (LRR) flanked by LRR N-terminal and C-terminal domains, followed by multiple EGF-like domains, a Laminin G-like domain, and a C-terminal cysteine-rich domain. Alternative splicing generates additional isoforms with a substituted cysteine-rich domain or a deletion in the last EGF-like domain and Laminin G-like domain. During development, Slit3 is expressed in the ventral neural tube, developing sensory organs, limb buds, and developing areas of the limbs in patterns that overlap with but are discrete from Slit1 and Slit2. Axons will not be allowed to recross the floor plate unless all three Slit genes are disrupted, suggesting some overlap in Slit function. Slit3 is also expressed in the lung, kidney, skeletal muscle, and heart, both during development and postnatally. Mice with genetically disrupted Slit3 show abnormalities in diaphragm and kidney development. Slit3 is additionally expressed by vascular endothelial cells and smooth muscle cells.

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	It binds to both ROBO1 and ROBO4, but it is the ROBO4 interaction that mediates Slit3-induced angiogenesis. It also can enhance the chemokine-induced migration of monocytes. The related Slit2 protein is cleaved in vivo (at a site conserved in Slit3), and the resulting C-terminal fragment binds Plexin A1 and retains the ability to repel axon migration. The corresponding C-terminal fragment of Slit3 is able to bind heparin and neutralize its anti-coagulant activity. Within this fragment (aa 1120-1523), human Slit3 shares 93% amino acid identity with mouse and rat Slit3.
Predicted N Terminal	Leu1117
Form	Lyophilized from a 0.2 μm filtered solution in MOPS, NaCl and Etheylene Glycol with Trehalose.
Bio-activity	Measured by its ability to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons. Recombinant Mouse Slit-3, immobilized at 1.25 μg/mL on a 96-well plate, is able to significantly enhance neurite outgrowth.
Molecular Mass	Predicted Molecular Mass: 45 kDa SDS-PAGE: 56-63 kDa, reducing conditions
Endotoxin	<0.1 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.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

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Reconstitution	Reconstitute at 500 µg/mL in PBS.

GENE INFORMATION

Gene Name	SLIT3 slit homolog 3 (Drosophila) [Homo sapiens]
Official Symbol	SLIT3
Synonyms	SLIT3; slit homolog 3 (Drosophila); SLIL2, slit (Drosophila) homolog 3; slit homolog 3 protein; MEGF5; Slit 3; SLIT1; slit2; multiple EGF-like domains protein 5; multiple epidermal growth factor-like domains protein 5; SLIL2; Slit-3; FLJ10764;
Gene ID	6586
mRNA Refseq	NM_003062
Protein Refseq	NP_003053
MIM	603745
UniProt ID	O75094

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