

Active Recombinant Human Slit1, His-tagged

Cat. No. SLIT1-19H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Slit1, expressed in CHO.
Species	Human
Source	CHO
Description	Slit1 is a member of the Slit family of large secreted axon guidance molecules that are ligands for Robo receptors. Like other mammalian family members, the 1531 amino acid (aa), ~200 kDa Slit1 contains a 33 aa signal sequence followed by 23 leucine rich repeats (LRR, aa 34 900) and 9 EGF like sequences (aa 930 1451). Mammalian Slits also contain a laminin G domain between EGF6 and EGF7 (aa 1163 1336), and a C-terminal cysteine rich domain (cysteine knot? aa 1456 1531). Heparin sulfates are required for interaction of Robo with Slit LRR domains. Mouse Slit1 shares 99, 96, 89, 87 and 80% aa identity with rat, human, canine, Xenopus and zebrafish Slit1, respectively, within the LRR domains. Mouse Slits 1, 2 and 3 share 68 74% aa identity within the LRR domains. Slit1 and Slit2 (or in some cases Slit3) are expressed in complementary centrifugeations during development of the optic and olfactory tracts and the forebrain, and appear to work together to mediate Robo guidance of retinal, olfactory, hippocampal and motor axons.
Form	Lyophilized from a 0.2 µm filtered solution in MOPS and NaCl. See Certificate of Analysis for details.
Bio-activity	Measured by its ability to enhance neurite outgrowth of dissociated E13

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chick embryonic dorsal root ganglia (DRG) neurons. Able to significantly enhance neurite outgrowth when immobilized as a 3 μ L droplet containing 90 ng on a nitrocellulose coated microplate.

Molecular Mass	Predicted molecular mass: 97.6 kDa SDS PAGE: 110 kDa, under reducing conditions
Endotoxin	<1.0 eu per 1 μ g of the protein by the LAL
Purity	>80%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	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.
Reconstitution	Reconstitute at 200 μ g/mL in sterile PBS.
Warning	Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	SLIT1 slit homolog 1 (Drosophila) [Homo sapiens]
Official Symbol	SLIT1
Synonyms	SLIT1; slit homolog 1 (Drosophila); SLIL1, slit (Drosophila) homolog 1; slit homolog 1 protein; MEGF4; Slit 1; slit1; SLIT3; multiple EGF-like domains protein 4; multiple epidermal growth factor-like domains protein 4; SLIL1; SLIT-1; MGC164811;
Gene ID	6585

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mRNA Refseq	NM_003061
Protein Refseq	NP_003052
MIM	603742
UniProt ID	O75093
Chromosome Location	10q23.3-q24
Pathway	Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Netrin-1 signaling, organism-specific biosystem;
Function	Roundabout binding; calcium ion binding; heparan sulfate proteoglycan binding;

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