Recombinant Mouse Shank3 Protein, Myc/DDK-tagged

Cat. No. Shank3-5852M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length SH3 and multiple ankyrin repeat domains 3 (Shank3), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Major scaffold postsynaptic density protein which interacts with multiple proteins and complexes to orchestrate the dendritic spine and synapse formation, maturation and maintenance. Interconnects receptors of the postsynaptic membrane including NMDA-type and metabotropic glutamate receptors via complexes with GKAP/PSD-95 and HOMER, respectively, and the actin-based cytoskeleton. Plays a role in the structural and functional organization of the dendritic spine and synaptic junction through the interaction with Arp2/3 and WAVE1 complex as well as the promotion of the F-actin clusters. By way of this control of actin dynamics, participates in the regulation of developing neurons growth cone motility and the NMDA receptor-signaling. Also modulates GRIA1 exocytosis and GRM5/MGLUR5 expression and signaling to control the AMPA and metabotropic glutamate receptor-mediated synaptic transmission and plasticity. May be required at an early stage of synapse formation and be inhibited by IGF1 to promote synapse maturation.
Molecular Mass	185.4 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

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Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Shank3 SH3 and multiple ankyrin repeat domains 3 [Mus musculus (house mouse)]
Official Symbol	Shank3
Synonyms	SHANK3; SH3/ankyrin domain gene 3; SH3 and multiple ankyrin repeat domains protein 3; SPANK-2; proSAP2; proline-rich synapse-associated protein 2; SH3 and multiple ankyrin repeat domains-like protein 3 variant 1; SH3 and multiple ankyrin repeat domains-like protein 3 variant 2; SH3 and multiple ankyrin repeat domains-like protein 3 variant 3; SH3 and multiple ankyrin repeat domains-like protein 3 variant d-1; Shank3b; AI841104
Gene ID	58234
mRNA Refseq	NM_021423
Protein Refseq	NP_067398
UniProt ID	Q4ACU6

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