

Recombinant Human SHANK3 Protein, His&ABP tagged

Cat. No. SHANK3-10H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human SHANK3 Protein with His&ABP tag was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1088-1191 aa
Description	SHANK3 is a major scaffold postsynaptic density protein which interacts with multiple proteins and complexes to orchestrate the dendritic spine and synapse formation, maturation and maintenance. It 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. SHANK3 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, SHANK3 participates in the regulation of developing neurons growth cone motility and the NMDA receptor-signaling. It also modulates GRIA1 exocytosis and GRM5/MGLUR5 expression and signaling to control the AMPA and metabotropic glutamate receptor-mediated synaptic transmission and plasticity. SHANK3 may be required at an early stage of synapse formation and be inhibited by IGF1 to promote synapse maturation.
Form	Liquid

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AASequence	PSGSTFIHPLTGKPLDPSSPLALALAAARERALASQAPSRSPTPVHSPDADRPGLFV DVQARDPERGSLASPAFSPRSPAWIPVPARREAEKVPREERKSPEDK
Application	Ctrl; BLOCK
Purity	> 80% by SDS-PAGE and Coomassie blue staining
Storage	At -20 centigrade, Avoid Freeze/Thaw Cycles
Storage Buffer	PBS/1M urea, pH 7.4
Concentration	≥5.0 mg/mL
Shipping	Wet ice

GENE INFORMATION

Gene Name	SHANK3 SH3 and multiple ankyrin repeat domains 3 [Homo sapiens (human)]
Official Symbol	SHANK3
Synonyms	SHANK3; SH3 and multiple ankyrin repeat domains 3; SH3 and multiple ankyrin repeat domains protein 3; KIAA1650; proline rich synapse associated protein 2; prosap2; PSAP2; shank postsynaptic density protein; SPANK 2; SCZD15; PROSAP2; SPANK-2; DEL22q13.3;
Gene ID	85358
mRNA Refseq	NM_033517
Protein Refseq	NP_277052

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MIM	606230
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UniProt ID	Q9BYB0
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