

SHANK1 Rabbit pAb

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Catalog # AP52343

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9Y566
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	224959
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Shank1
Epitope Specificity	101-200/2161
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	May homomultimerize via its SAM domain (By similarity). Interacts with the C-terminus of SSTR2 via the PDZ domain. Interacts with IGSF9, SHARPIN, SPTAN1, HOMER1 and DLGAP1/GKAP isoforms 1 and 2 (By similarity). Part of a complex with DLG4/PSD-95 and DLGAP1/GKAP (By similarity). Interacts with BAIAP2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The mechanisms underlying the molecular assemblage of molecules at the synapse are not well understood. Recently, a number of novel anchoring/scaffold proteins that are associated with postsynaptic density (PSD) proteins have been isolated. SHANK1, SHANK2 and SHANK3 constitute a family of proteins that may function as molecular scaffolds in the PSD. SHANK is made of five domain/regions that are probably involved in protein-protein interactions: ankyrin repeats, an SH3 domain, a PDZ domain, a SAM domain, and a proline rich region. SHANK interacts directly with GKAP or SAPAP via its PDZ domain, thus potentially bridging the N-methyl-D-aspartate receptor (NMDA)-PSD-95-GKAP complex.

Additional Information

Gene ID	50944
Other Names	SH3 and multiple ankyrin repeat domains protein 1, Shank1, Somatostatin receptor-interacting protein, SSTR-interacting protein, SSTRIP, SHANK1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SHANK1
Function	Seems to be an adapter protein in the postsynaptic density (PSD) of excitatory synapses that 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.
Cellular Location	Cytoplasm. Postsynaptic density. Synapse. Note=Colocalizes with alpha-latrotoxin receptor 1.
Tissue Location	Expressed in brain particularly in the amygdala, hippocampus, substantia nigra and thalamus. Isoform 2 seems to be expressed ubiquitously

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References

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