



## Rabbit Anti-SHANK2 antibody

SL11238R

<b>Product Name:</b>	SHANK2
<b>Chinese Name:</b>	富含脯氨酸突触相关蛋白SHANK2抗体
<b>Alias:</b>	Cortactin binding protein 1; Cortactin SH3 domain-binding protein; Cortactin-binding protein 1; CortBP1; CTTNBP1; GKAP/SAPAP interacting protein; GKAP/SAPAP-interacting protein; KIAA1022; Proline rich synapse associated protein 1; Proline-rich synapse-associated protein 1; PROSAP1; SH3 and multiple ankyrin repeat domains protein 2; SHANK; Shank2; Shank2; SPANK3; SPANK-3; SHAN2_HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Cow,Rabbit,Sheep,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	159kDa
<b>Cellular localization:</b>	cytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human SHANK2:161-260/1470
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	SH3 and multiple ankyrin repeat domains 1-3 (Shank1-3) of the Shank/ProSAP family are molecular scaffolds in the postsynaptic density (PSD). The PSD is an electron-dense structure underneath the postsynaptic plasma membrane of excitatory synapses that

anchors and clusters glutamate receptors opposite to the presynaptic neurotransmitter release site. Shank proteins contain PDZ modular domains that coordinate the synaptic localization of ion channels, receptors, signaling enzymes, and cell adhesion molecules. The PDZ domain mediates protein-protein interactions via the recognition of a conserved sequence motif at the C-terminus of their target protein(s). Shank recruits betaPIX and PAK to spines to regulate postsynaptic structure and interacts with NMDA receptor and metabotropic glutamate receptor complexes. Transcript splice variation in the Shank family influences the spectrum of Shank-interacting proteins in the PSDs of adult and developing brain to ensure normal development.

**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, and the actin-based cytoskeleton. May play a role in the structural and functional organization of the dendritic spine and synaptic junction.

**Subunit:**

Interacts with CTTN/cortactin SH3 domain, LGAP1/GKAP and alpha-latrotoxin receptor 1. Is part of a complex with DLG4/PSD-95 and DLGAP1/GKAP. Interacts with GRID2, SLC9A3, CFTR and PLCB3. Interacts with DBNL (By similarity). Interacts with DNM2. Interacts with BAIAP2.

**Subcellular Location:**

Cytoplasm. Cell junction > synapse. Cell junction > synapse > postsynaptic cell membrane; postsynaptic density. Cell projection; growth cone. Cytoplasm, postsynaptic density of neuronal cells. Colocalizes with cortactin in growth cones in differentiating hippocampal neurons.

**Tissue Specificity:**

Isoform 3 is present in epithelial colonic cells (at protein level).

**DISEASE:**

All isoforms except isoform 7 are expressed predominantly in brain, with highest levels in olfactory bulb, cerebral cortex, cerebellum, central gray matter and hippocampus. Moderate levels of expression are seen in the caudate putamen, thalamic nuclei and brain stem. In cerebellum primarily expressed in Purkinje cells. Isoform 7 is not expressed in brain but expressed in liver, cholangiocytes and thymus. Isoform 7 is present in pancreas, colonic mucosa and thymocytes (at protein level).

**Similarity:**

Belongs to the SHANK family.  
Contains 1 PDZ (DHR) domain.  
Contains 1 SAM (sterile alpha motif) domain.  
Contains 1 SH3 domain.

**SWISS:**

Q9UPX8

**Gene ID:**  
22941

**Database links:**

[Entrez Gene: 22941](#)Human

[Entrez Gene: 210274](#)Mouse

[Entrez Gene: 171093](#)Rat

[Oimim: 603290](#)Human

[SwissProt: Q9UPX8](#)Human

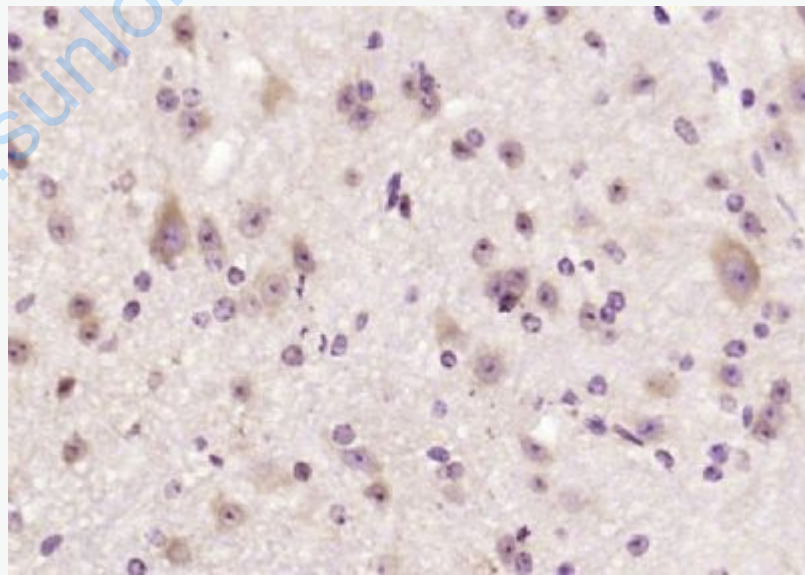
[SwissProt: Q80Z38](#)Mouse

[SwissProt: Q9QX74](#)Rat

**Important Note:**

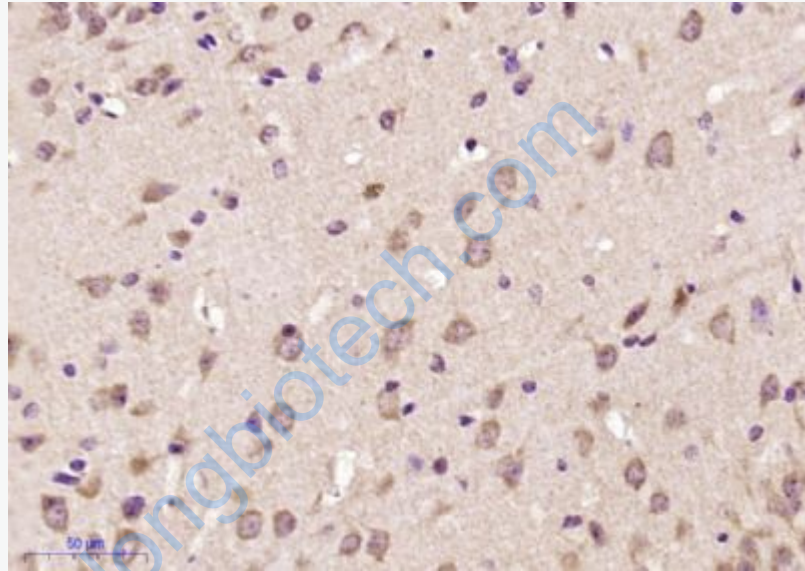
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Picture:**



Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase

by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SHANK2) Polyclonal Antibody, Unconjugated (SL11238R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SHANK2) Polyclonal Antibody, Unconjugated (SL11238R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.