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Shank 1

Cat.No. 162 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 μ l antiserum, lyophilized. For reconstitution add 200 μ l H_2O , then aliquot and store at -20°C until use.
Applications	WB: 1: 1000 (AP staining) IP: not tested yet ICC: not tested yet IHC: not tested yet IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 135 to 149 from rat Shank1 (UniProt Id: Q9WV48)
Reactivity	Reacts with: human (Q9Y566), rat (Q9WV48), mouse (D3YZU1), dog, pig, cow, monkey. Other species not tested yet.
Specificity	Specific for shank 1.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Shank 1, 2 and 3 are major proteins of the postsynaptic density (PSD). They are composed of several protein-protein interaction domains like PDZ-, homer- and ABP 1-binding domains which allow them to crosslink ionotopic and metabotropic glutamate receptor complexes with each other and to the actin-cytoskeleton.

Selected References SYSY Antibodies

Hyperactivity of newborn Pten knock-out neurons results from increased excitatory synaptic drive. Williams MR, DeSpenza T, Li M, Gulledge AT, Luikart BW

The Journal of neuroscience: the official journal of the Society for Neuroscience (2015) 35(3): 943-59. IHC

Selected General References

Key role of the postsynaptic density scaffold proteins Shank and Homer in the functional architecture of Ca2+ homeostasis at dendritic spines in hippocampal neurons.

Sala C, Roussignol G, Meldolesi J, Fagni L

The Journal of neuroscience: the official journal of the Society for Neuroscience (2005) 25(18): 4587-92.

Shank expression is sufficient to induce functional dendritic spine synapses in aspiny neurons.

Roussignol G, Ango F, Romorini S, Tu JC, Sala C, Worley PF, Bockaert J, Fagni L

The Journal of neuroscience: the official journal of the Society for Neuroscience (2005) 25(14): 3560-70.

Postsynaptic shank antagonizes dendrite branching induced by the leucine-rich repeat protein Densin-180.

Quitsch A, Berhörster K, Liew CW, Richter D, Kreienkamp HJ

The Journal of neuroscience: the official journal of the Society for Neuroscience (2005) 25(2): 479-87.

Linkage of the actin cytoskeleton to the postsynaptic density via direct interactions of Abp1 with the ProSAP/Shank family.

Qualmann B, Boeckers TM, Jeromin M, Gundelfinger ED, Kessels MM

The Journal of neuroscience: the official journal of the Society for Neuroscience (2004) 24(10): 2481-95.

Crystal structure of the Shank PDZ-ligand complex reveals a class I PDZ interaction and a novel PDZ-PDZ dimerization.

Im YJ, Lee JH, Park SH, Park SJ, Rho SH, Kang GB, Kim E, Eom SH

The Journal of biological chemistry (2003) 278(48): 48099-104.

ProSAP/Shank proteins - a family of higher order organizing molecules of the postsynaptic density with an emerging role in human neurological disease.

Boeckers TM, Bockmann J, Kreutz MR, Gundelfinger ED

Journal of neurochemistry (2002) 81(5): 903-10.

Regulation of dendritic spine morphology and synaptic function by Shank and Homer.

Sala C. Piëch V, Wilson NR, Passafaro M, Liu G, Sheng M

Neuron (2001) 31(1): 115-30.

The G protein-coupled receptor CL1 interacts directly with proteins of the Shank family.

Tobaben S, Südhof TC, Stahl B

The Journal of biological chemistry (2000) 275(46): 36204-10.

The Shank family of scaffold proteins.

Sheng M, Kim E

Journal of cell science (2000) 113 (Pt 11): 1851-6.

Shank, a novel family of postsynaptic density proteins that binds to the NMDA receptor/PSD-95/GKAP complex and cortactin. Naisbitt S, Kim E, Tu JC, Xiao B, Sala C, Valtschanoff J, Weinberg RJ, Worley PF, Sheng M Neuron (1999) 23(3): 569-82.