

ARG24125 anti-SHANK3 antibody [S69]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [S69] recognizes SHANK3
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Clone	S69
Isotype	IgG2b
Target Name	SHANK3
Species	Rat
Immunogen	Synthetic peptide of Rat Shank3
Conjugation	Un-conjugated
Alternate Names	SHANK3; SH3 And Multiple Ankyrin Repeat Domains 3; PSAP2; KIAA1650; SPANK-2; PROSAP2; SH3 And Multiple Ankyrin Repeat Domains Protein 3; Proline Rich Synapse Associated Protein 2; Shank3 Postsynaptic Density Protein; Proline-Rich Synapse-Associated Protein 2; Shank Postsynaptic Density Protein; DEL22q13.3; Prosap2; ProSAP2; SCZD15; Shank3

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:100
	IHC-P	1:1000
	IP	Assay-dependent
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

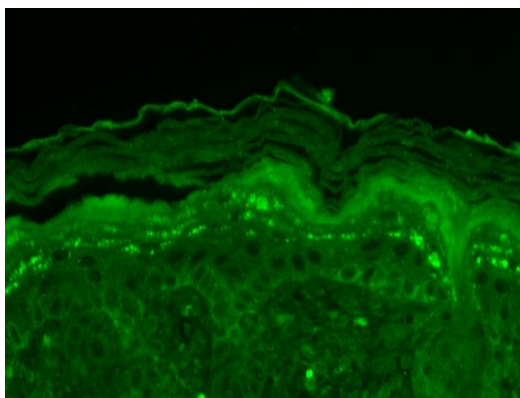
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 50% Glycerol and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

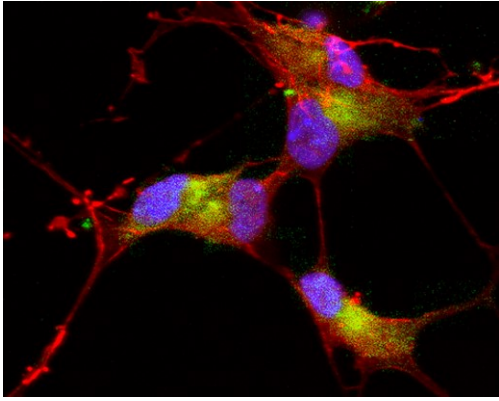
Gene Symbol	SHANK3
Gene Full Name	SH3 And Multiple Ankyrin Repeat Domains 3
Function	his gene is a member of the Shank gene family. Shank proteins are multidomain scaffold proteins of the postsynaptic density that connect neurotransmitter receptors, ion channels, and other membrane proteins to the actin cytoskeleton and G-protein-coupled signaling pathways. Shank proteins also play a role in synapse formation and dendritic spine maturation. Mutations in this gene are a cause of autism spectrum disorder (ASD), which is characterized by impairments in social interaction and communication, and restricted behavioral patterns and interests. Mutations in this gene also cause schizophrenia type 15, and are a major causative factor in the neurological symptoms of 22q13.3 deletion syndrome, which is also known as Phelan-McDermid syndrome. Additional isoforms have been described for this gene but they have not yet been experimentally verified.
Highlight	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.
Calculated Mw	184 kDa
PTM	Methylation, Phosphoprotein
Cellular Localization	Cell projection, Cytoplasm, Synapse

Images



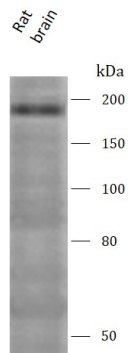
ARG24125 anti-SHANK3 antibody [S69] IHC-P image

Immunohistochemistry: Mouse Backskin stained with ARG24125 anti-SHANK3 antibody [S69] at 1:100 dilution.



ARG24125 anti-SHANK3 antibody [S69] ICC/IF image

Immunofluorescence: SH-SY5Y stained with ARG24125 anti-SHANK3 antibody [S69] at 1:50 dilution.



ARG24125 anti-SHANK3 antibody [S69] WB image

Western blot: Rat brain stained with ARG24125 anti-SHANK3 antibody [S69] at 1:1000 dilution.