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SHANK3 Antibody
SHANK3 Antibody, Clone S69-46
Catalog # ASM10212

Specification

SHANK3 Antibody - Product Information

Application	**WB, IHC, ICC, IP, AM**
Primary Accession	Q9JLU4
Other Accession	NP_067708.1
Host	**Mouse**
Isotype	**IgG2b**
Reactivity	**Human, Mouse, Rat**
Clonality	**Monoclonal**

Description
Mouse Anti-Rat SHANK3 Monoclonal IgG2b

Target/Specificity
Detects ~190kDa. No cross-reactivity against Shank1 or Shank2.

Other Names
AI841104 antibody, DEL22q13.3 antibody, KIAA1650 antibody, Proline rich synapse associated protein 2 antibody, Proline-rich synapse-associated protein 2 antibody, ProSAP2 antibody, PSAP2 antibody, SH3 and multiple ankyrin repeat domains 3 antibody, SH3 and multiple ankyrin repeat domains protein 3 antibody SH3/ankyrin domain gene 3 antibody, SHAN3_HUMAN antibody, Shank postsynaptic density protein antibody, Shank3 antibody, Shank3b antibody, SPANK 2 antibody, SPANK2 antibody

Immunogen
Synthetic peptide amino acids 840-857 of rat Shank3

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-336 was sufficient for detection of Shank3 in 10 µg COS cell lysate transiently transfected with Shank3 by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

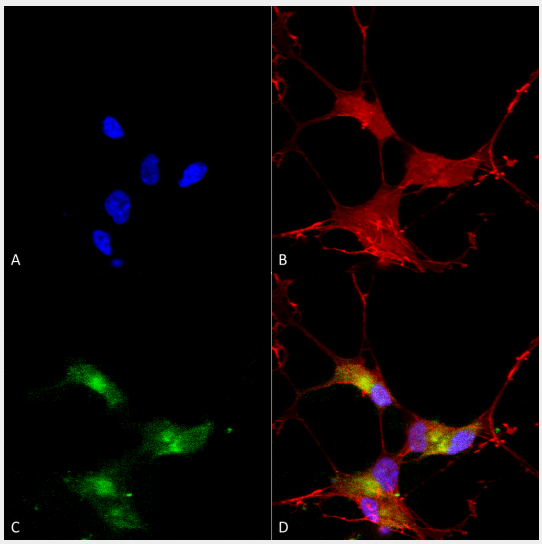
Cellular Localization
Cytoplasm | Cell Junction | Synapse | Postsynaptic Cell Membrane | Postsynaptic Density

SHANK3 Antibody - Protocols

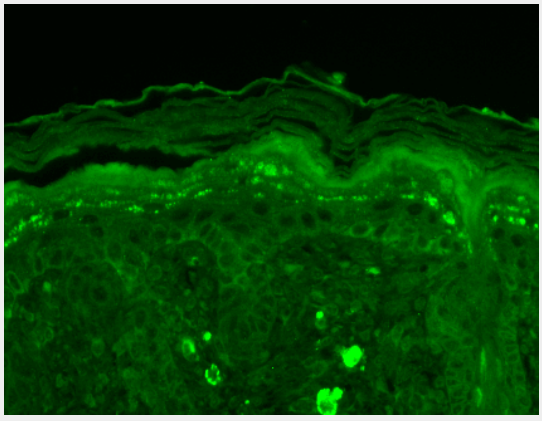
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

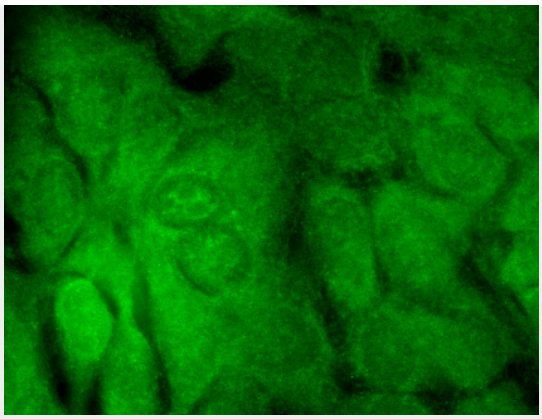
SHANK3 Antibody - Images



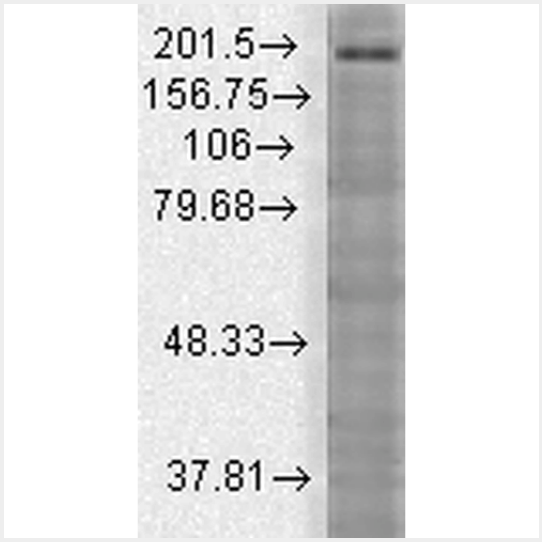
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SHANK3 Monoclonal Antibody, Clone S69-46 (ASM10212). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-SHANK3 Monoclonal Antibody (ASM10212) at 1:50 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) SHANK3 Antibody (D) Composite.



Immunohistochemistry analysis using Mouse Anti-SHANK3 Monoclonal Antibody, Clone S69-46 (ASM10212). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-SHANK3 Monoclonal Antibody (ASM10212) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Early stages of filaggrin-like and dermal staining.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SHANK3 Monoclonal Antibody, Clone S69-46 (ASM10212). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20°C. Primary Antibody: Mouse Anti-SHANK3 Monoclonal Antibody (ASM10212) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Borderline positive.



Western Blot analysis of Rat brain membrane lysate showing detection of SHANK3 protein using Mouse Anti-SHANK3 Monoclonal Antibody, Clone S69-46 (ASM10212). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-SHANK3 Monoclonal Antibody (ASM10212) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

SHANK3 Antibody - Background

Shank proteins make up a family of scaffold proteins identified through their interaction with a variety of membrane and cytoplasmic proteins (1). Shank proteins at postsynaptic sites of excitatory synapses play roles in signal transmission into the postsynaptic neuron. Shank proteins are also crucial in receptor tyrosine kinase signaling; specifically, Shank3 can mediate Erk-MAPK and P13K signaling which is crucial for tubule formation (2). Shank3 is also one of the latest genes to be associated with autism. A mutation of a single copy of Shank3 on chromosome 22q13 can result in language and/or social communication disorders (3).

SHANK3 Antibody - References

1. Sheng M., and Kim E. (2000) Journal of Cell Science. 113: 1851-1856.
2. Schuetz G., et al. (2004) JCB. 167(5): 645-952.

3. Durand C.M., et al. (2007) Nature Genetics. 39: 25-27.