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Datasheet for ABIN1741267

## anti-SHANK3 antibody (AA 538-626) (PE)

### 3 Images

#### Overview

Quantity:	100 µg
Target:	SHANK3
Binding Specificity:	AA 538-626
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SHANK3 antibody is conjugated to PE
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

#### Product Details

Immunogen:	Fusion protein amino acids 538-626 (SH3 domain) of rat SHANK3. Mouse: 100% identity (89/89 amino acids identical). Human: 97% identity (87/89 amino acids identical). ~70% identity with SHANK1 and SHANK2.
Clone:	S367-51
Isotype:	IgG2a
Specificity:	Detects ~190 kDa. Cross-reacts with SHANK1. Does not cross-react with SHANK2.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

## Target Details

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Target:	SHANK3
Alternative Name:	SHANK3 ( <a href="#">SHANK3 Products</a> )
Background:	SHANK proteins are scaffolding adaptors that have been shown to integrate neurotransmitter receptors into the cortical cytoskeleton at postsynaptic densities. SHANK1-3 of the SHANK/ProSAP family are molecular scaffolds in the postsynaptic density (PSD). SHANK recruits betaPIX and PAK to dendritic spines to regulate postsynaptic structure and interacts with ionotropic 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.
Gene ID:	59312
UniProt:	<a href="#">Q9JLU4</a>
Pathways:	<a href="#">Synaptic Membrane</a> , <a href="#">Tube Formation</a> , <a href="#">Regulation of long-term Neuronal Synaptic Plasticity</a>

## Application Details

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Application Notes:	<ul style="list-style-type: none"><li>• WB (1:1000)</li><li>• ICC/IF (1:100)</li><li>• optimal dilutions for assays should be determined by the user.</li></ul>
Comment:	1 µg/ml of ABIN1741267 was sufficient for detection of SHANK1/SHANK3 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

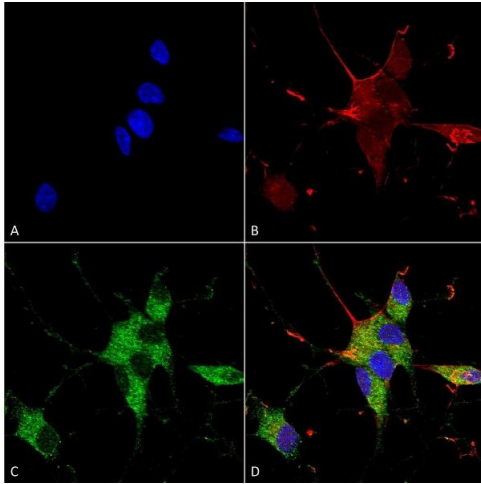
## Handling

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Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.1 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C

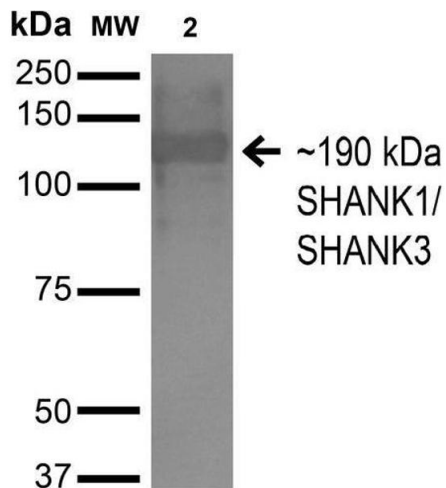
Storage Comment: Conjugated antibodies should be stored at 4°C

## Validation report #029836 for Western Blotting (WB)



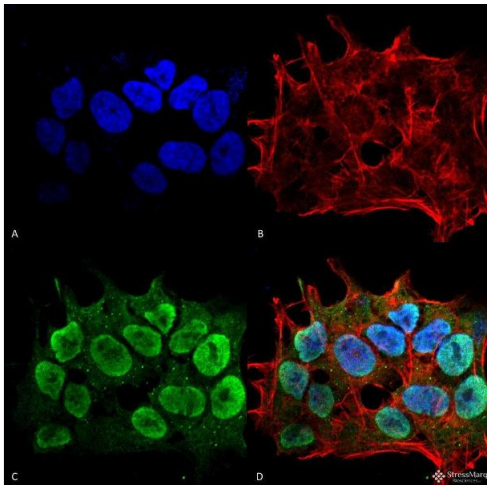
### Immunocytochemistry

**Image 1.** Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SHANK1/SHANK3 Monoclonal Antibody, Clone S367-51 (ABIN1741267). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-SHANK1/SHANK3 Monoclonal Antibody (ABIN1741267) at 1:100 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, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) SHANK1/SHANK3 Antibody (D) Composite.



### Western Blotting

**Image 2.** Western Blot analysis of Monkey COS cells transfected with HA-tagged Shank1 showing detection of ~190 kDa SHANK1/SHANK3 protein using Mouse Anti-SHANK1/SHANK3 Monoclonal Antibody, Clone S367-51. Lane 1: Molecular Weight Ladder. Lane 2: Monkey COS cells transfected with HA-tagged Shank1. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-SHANK1/SHANK3 Monoclonal Antibody at 1:200 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 1 hour RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~190 kDa.



### Immunofluorescence (fixed cells)

**Image 3.** Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SHANK1/SHANK3 Monoclonal Antibody, Clone S367-51 . Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-SHANK1/SHANK3 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000; 1:5000 for 60 min RT, 5 min RT. Localization: Cytoplasm, Nucleus. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) SHANK1/SHANK3 Antibody (D) Composite.