




## Product datasheet

### Anti-SHANK3 antibody [S69] ab93607

Recombinant

★★★★★ [1 Abreviews](#) [4 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-SHANK3 antibody [S69]
<b>Description</b>	Mouse monoclonal [S69] to SHANK3
<b>Host species</b>	Mouse
<b>Specificity</b>	No cross-reactivity with SHANK1 or SHANK2.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Horse, Cow 
<b>Immunogen</b>	Synthetic peptide corresponding to Rat SHANK3 aa 800-900 (internal sequence). Database link: <a href="#">Q9JLU4</a>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>General notes</b>	<p>The clone number has been updated from S69-46 to N69/46, both clone numbers name the same antibody clone.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.09% Sodium azide Constituents: 50% Glycerol, PBS
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	S69

Isotype

IgG2b

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab93607 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 190 kDa (predicted molecular weight: 186 kDa).
IHC-P		Use at an assay dependent concentration.
Flow Cyt		Use 1µg for 10 <sup>6</sup> cells. <b>ab170192</b> - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

## Target

### 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 via complexes with GKAP/PSD-95 and Homer, respectively, and the actin-based cytoskeleton. May play a role in the structural and functional organization of the dendritic spine and synaptic junction.

### Tissue specificity

Expressed in the cerebral cortex and the cerebellum.

### Involvement in disease

Note=A chromosomal aberration involving SHANK3 is found in patients with chromosome 22q13.3 deletion syndrome. Translocation t(12;22)(q24.1;q13.3) with APPL2/DIP13B.  
Note=Defects in SHANK3 are associated with autism spectrum disorders (ASD). ASD are characterized by impairments in reciprocal social interaction and communication as well as restricted and stereotyped patterns of interest and activities. ASD include forms with moderate to severe cognitive impairment and milder forms with higher cognitive ability (Asperger syndrome). Defects in SHANK3 are the cause of schizophrenia type 15 (SCZD15) [MIM:613950]. SCZD15 is a complex, multifactorial psychotic disorder or group of disorders characterized by disturbances in the form and content of thought (e.g. delusions, hallucinations), in mood (e.g. inappropriate affect), in sense of self and relationship to the external world (e.g. loss of ego boundaries, withdrawal), and in behavior (e.g. bizarre or apparently purposeless behavior). Although it affects emotions, it is distinguished from mood disorders in which such disturbances are primary. Similarly, there may be mild impairment of cognitive function, and it is distinguished from the dementias in which disturbed cognitive function is considered primary. Some patients manifest schizophrenic as well as bipolar disorder symptoms and are often given the diagnosis of schizoaffective disorder.

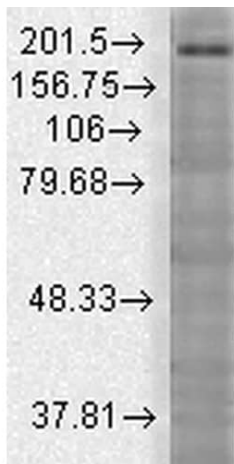
### Sequence similarities

Contains 6 ANK repeats.  
Contains 1 PDZ (DHR) domain.  
Contains 1 SAM (sterile alpha motif) domain.  
Contains 1 SH3 domain.

### Cellular localization

Cytoplasm. Cell junction > synapse. Cell junction > synapse > postsynaptic cell membrane > postsynaptic density. Postsynaptic density of neuronal cells.

## Images



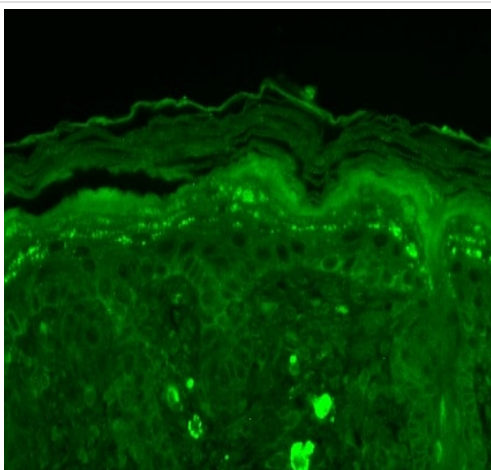
Western blot - Anti-SHANK3 antibody [S69]  
(ab93607)

Anti-SHANK3 antibody [S69] (ab93607) at 1/1000 dilution + Rat brain membrane lysate at 15 µg

### Secondary

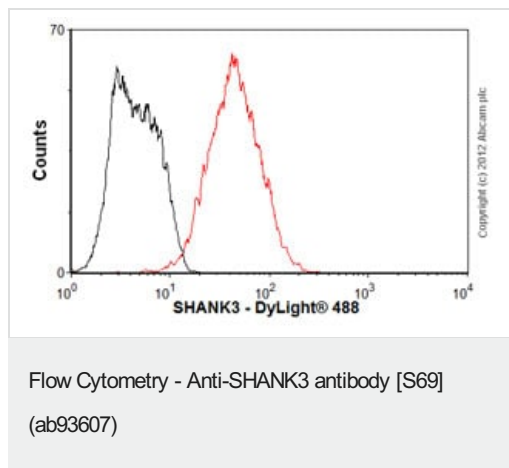
Sheep Anti-Mouse IgG-HRP

**Predicted band size:** 186 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHANK3 antibody [S69]  
(ab93607)

Immunohistochemical analysis of mouse backskin tissue sections labling SHANK3 with ab93607 at 1/100 dilution. FITC Goat anti-mouse at 1/50 was used as the secondary antibody.



Overlay histogram showing SH-SY5Y cells stained with ab93607 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab93607, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (**ab91366**, 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in SH-SY5Y cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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