

Anti-SHANK3 antibody [N69/46] ab193307

[2 References](#) [2 Images](#)

Overview

Product name	Anti-SHANK3 antibody [N69/46]
Description	Mouse monoclonal [N69/46] to SHANK3
Host species	Mouse
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: U20S cells. Mouse cerebellum, rat cortex, rat brain membrane and human cortex lysates gave a positive result in WB.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</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&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C.
Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 6.97% L-Arginine</p>
Purity	Protein G purified
Clonality	Monoclonal
Clone number	N69/46
Isotype	IgG2b

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab193307 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
ICC/IF		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 186 kDa (predicted molecular weight: 186 kDa).

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.

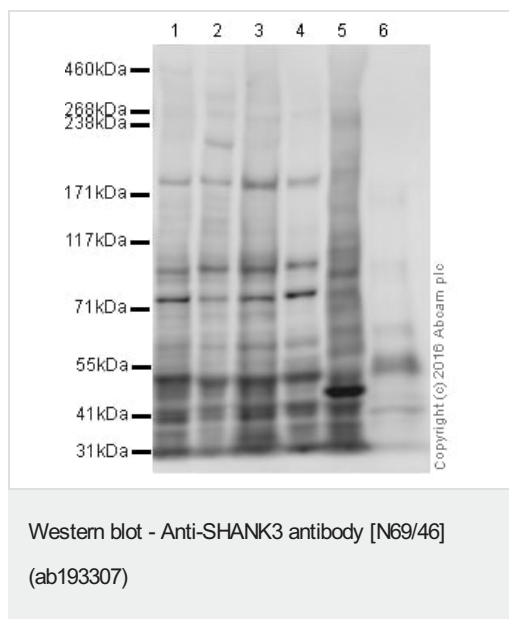
Sequence similarities

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



All lanes : Anti-SHANK3 antibody [N69/46] (ab193307) at 5 µg/ml

Lane 1 : Cerebellum Mouse Tissue Lysate

Lane 2 : Rat Cortex

Lane 3 : Rat brain normal tissue lysate - membrane extract

([ab29473](#))

Lane 4 : Human Cortex

Lane 5 : Human Striatum Neuronal cell lysate

Lane 6 : Human liver tissue lysate - total protein ([ab29889](#))

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/5000 dilution

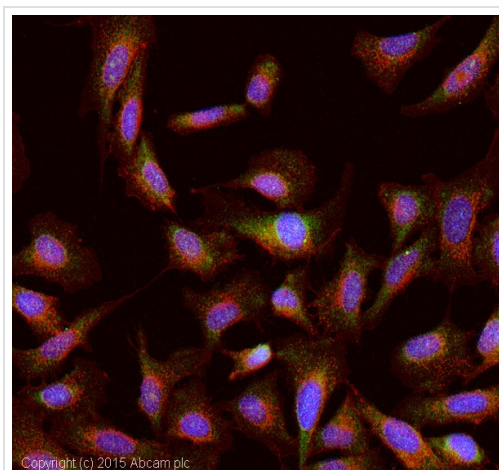
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 186 kDa

Observed band size: 186 kDa

Exposure time: 4 minutes



Immunocytochemistry/ Immunofluorescence - Anti-SHANK3 antibody [N69/46] (ab193307)

ab193307 stained U2OS cells. The cells were 100% methanol fixed for 5 minutes at -20°C and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab193307 at 5µg/ml) overnight at +4°C. The secondary antibody (pseudo-colored green) was Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed ([ab150117](#)) used at a 1/1000 dilution for 1hour at room temperature. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors