abcam

Product datasheet

Anti-SNAP25 antibody ab41455

★★★★★ 2 Abreviews 18 References 6 Images

Overview

Product name	Anti-SNAP25 antibody
Description	Rabbit polyclonal to SNAP25
Host species	Rabbit
Specificity	Replenishment batches of our polyclonal antibody, ab41455 are tested in WB. Previous batches were additionally validated in ICC and IP. These applications are still expected to work and are covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, **ab109105**.
Tested applications	**Suitable for:** IP, ICC, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human, Zebrafish **Predicted to work with:** Chicken, Cow
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab41455 in the following tested applications.

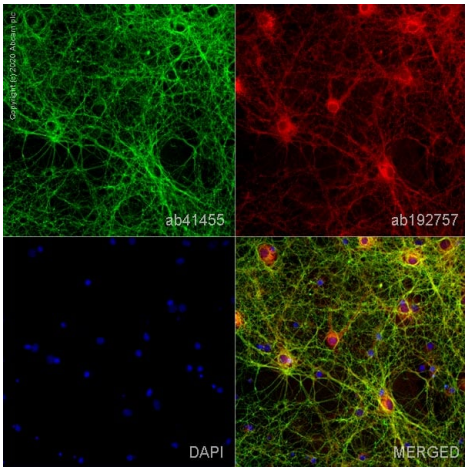
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use a concentration of 5 µg/ml.
ICC		Use a concentration of 1 - 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 26 kDa (predicted molecular weight: 23 kDa).

Target

Function	t-SNARE involved in the molecular regulation of neurotransmitter release. May play an important role in the synaptic function of specific neuronal systems. Associates with proteins involved in vesicle docking and membrane fusion. Regulates plasma membrane recycling through its interaction with CENPF.
Tissue specificity	Neurons of the neocortex, hippocampus, piriform cortex, anterior thalamic nuclei, pontine nuclei, and granule cells of the cerebellum.
Sequence similarities	Belongs to the SNAP-25 family. Contains 2 t-SNARE coiled-coil homology domains.
Post-translational modifications	Palmitoylated. Cys-85 appears to be the main site, and palmitoylation is required for membrane association.
Cellular localization	Cytoplasm > perinuclear region. Cell membrane. Cell junction > synapse > synaptosome. Membrane association requires palmitoylation. Expressed throughout cytoplasm, concentrating at the perinuclear region.

Images

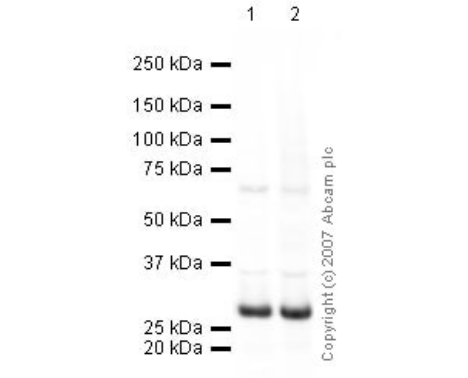


Immunocytochemistry - Anti-SNAP25 antibody (ab41455)

ab41455 staining SNAP25 in primary hippocampal rat neurons/glia, (obtained from Neuromics, cat. no. PC35101), DIV14. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab41455 at 1µg/ml and **ab192757**, Mouse mono Anti-PSD95 antibody [K28/43] - Synaptic Marker. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-SNAP25 antibody (ab41455)

All lanes : Anti-SNAP25 antibody (ab41455) at 1 µg/ml

Lane 1 : Spinal cord (Rat) tissue lysate
Lane 2 : Hippocampus (Mouse) tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 23 kDa
Observed band size: 26 kDa

Western blot - Anti-SNAP25 antibody (ab41455)

Anti-SNAP25 antibody (ab41455) at 1 µg/ml + Recombinant Human SNAP25 protein (**ab74529**) at 0.01 µg

Secondary

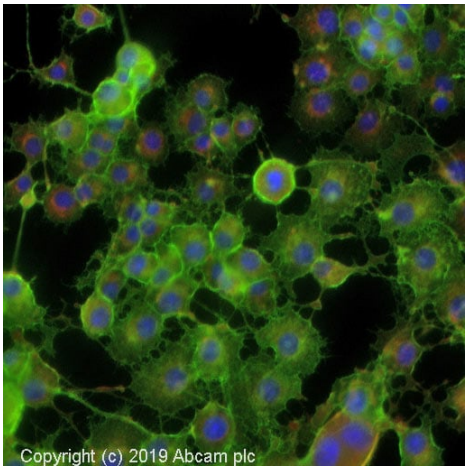
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

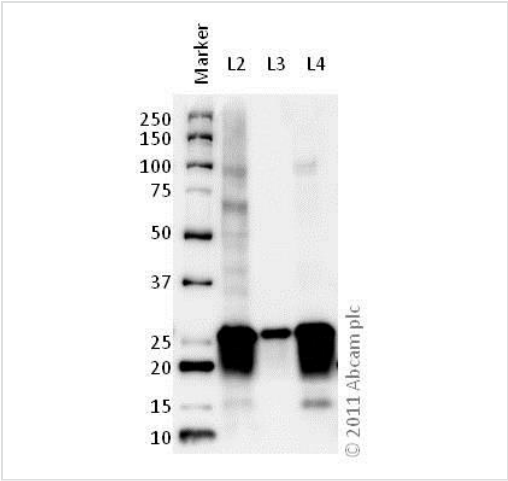
Predicted band size: 23 kDa

Exposure time: 1 minute



Immunocytochemistry - Anti-SNAP25 antibody (ab41455)

ab4455 staining SNAP25 in PC12 cells. The cells were fixed with 100% methanol (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab41455 at 5µg/ml and **ab7291** (Mouse monoclonal to alpha Tubulin - Loading Control) used at a 1/1000 dilution overnight at +4°C. The secondary antibodies were **ab150081**, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed, (pseudo-colored green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594) preadsorbed, (colored red), both used at a 1/1000 dilution for 1 hour at room temperature. DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43 µM for 1hour at room temperature.



Western blot - Anti-SNAP25 antibody (ab41455)

All lanes : Anti-SNAP25 antibody (ab41455) at 1 µg/ml

Lane 1 : Marker
Lane 2 : Zebrafish brain homogenate at 20 µg
Lane 3 : SH-SY5Y (Human neuroblastoma cell line) whole cell lysate at 20 µg
Lane 4 : Mouse brain homogenate at 20 µg

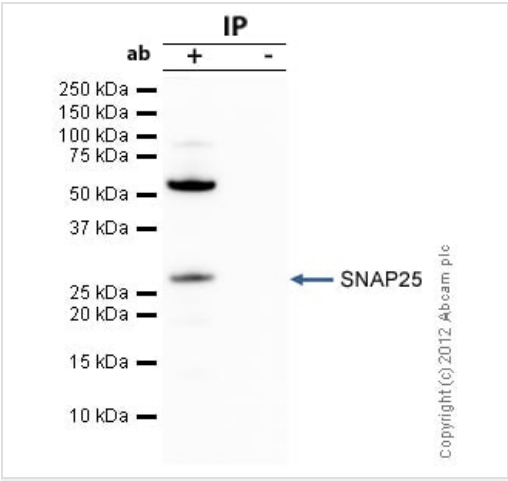
Secondary
All lanes : Goat polyclonal to Rabbit IgG – H&L – Pre-Adsorbed (HRP) at 1/6000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 23 kDa
Observed band size: 26 kDa

Exposure time: 2 minutes



Immunoprecipitation - Anti-SNAP25 antibody (ab41455)

SNAP25 was immunoprecipitated using 0.5mg Rat Spinal Cord tissue lysate, 5µg of Rabbit polyclonal to SNAP25 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, Rat Spinal Cord tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab41455.
Secondary: Clean-Blot IP Detection Reagent (HRP) at 1/500 dilution.
Band: 26kDa; SNAP25

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