abcam

Product datasheet

Anti-VGluT1 antibody [EPR22269] - BSA and Azide free ab242017

Recombinant RabMAb

13 Images

Overview

Product name	Anti-VGluT1 antibody [EPR22269] - BSA and Azide free
Description	Rabbit monoclonal [EPR22269] to VGluT1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, IHC-Fr, IP, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Mouse cerebrum tissue; Rat and human cerebral cortex tissues. IHC-Fr: Mouse and rat hippocampus tissues. Human cerebellum and hippocampus tissue. IP: Mouse brain lysate.
General notes	ab242017 is the carrier-free version of **ab227805**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22269
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab242017 in the following tested applications.

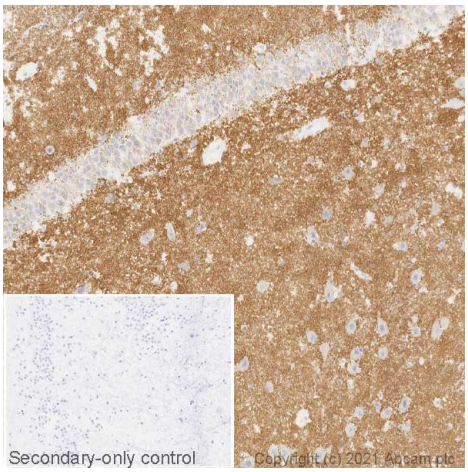
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 62 kDa (predicted molecular weight: 62 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

Target

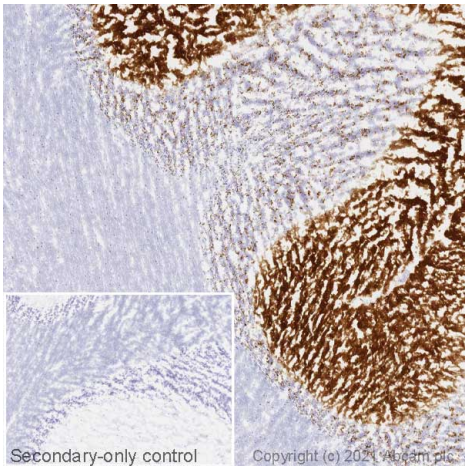
Function	Mediates the uptake of glutamate into synaptic vesicles at presynaptic nerve terminals of excitatory neural cells. May also mediate the transport of inorganic phosphate.
Tissue specificity	Expressed in several regions of the brain including amygdala, cerebellum, cerebral cortex, hippocampus, frontal lobe, medulla, occipital lobe, putamen and temporal lobe.
Sequence similarities	Belongs to the major facilitator superfamily. Sodium/anion cotransporter family. VGLUT subfamily.
Cellular localization	Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane. Membrane. Cell junction, synapse, synaptosome.

Images



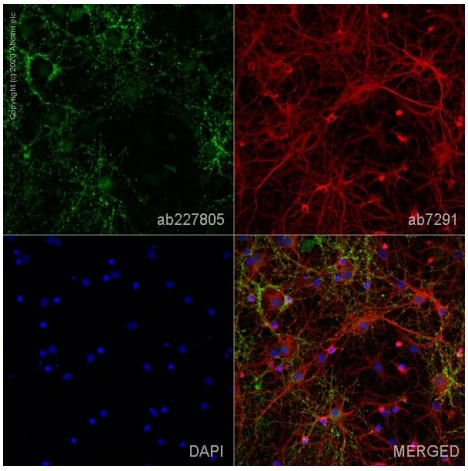
Immunohistochemistry (Frozen sections) analysis of Human hippocampus tissue labelling VGluT1 with **ab227805** at 1/100 dilution. Negative control using PBS instead of primary antibody.

Immunohistochemistry (Frozen sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)



Immunohistochemistry (Frozen sections) analysis of Human cerebellum tissue labelling VGluT1 with **ab227805** at 1/100 dilution. Negative control using PBS instead of primary antibody.

Immunohistochemistry (Frozen sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)



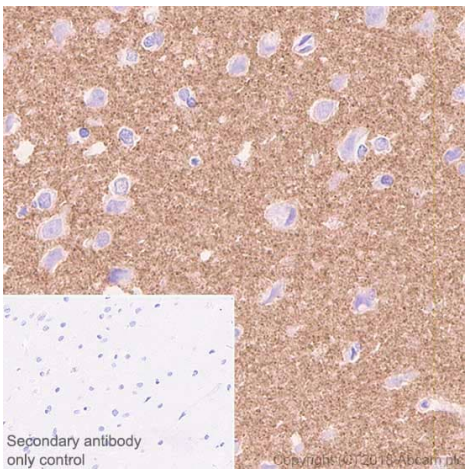
Immunocytochemistry/ Immunofluorescence - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

This data was developed using the same antibody clone in a different buffer formulation containing PBS and sodium azide (**ab227805**)

ab227805 staining VGluT1 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 **ab227805** at 1?g/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. 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.



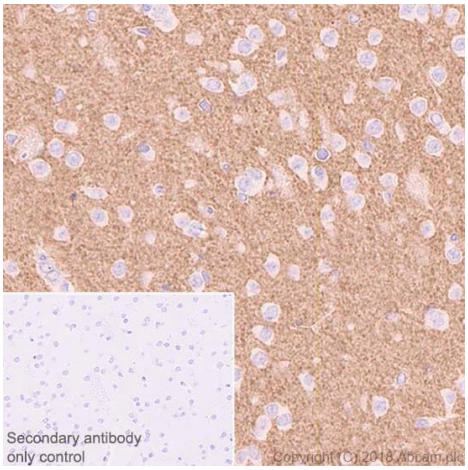
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of paraffin-embedded human cerebral cortex tissue labeling VGluT1 with **ab227805** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on human cerebral cortex (PMID: 29532891). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



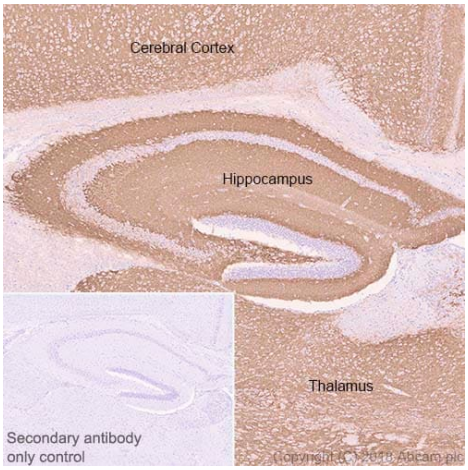
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of paraffin-embedded rat cerebral cortex tissue labeling VGluT1 with **ab227805** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on rat cerebral cortex (PMID: 29532891). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



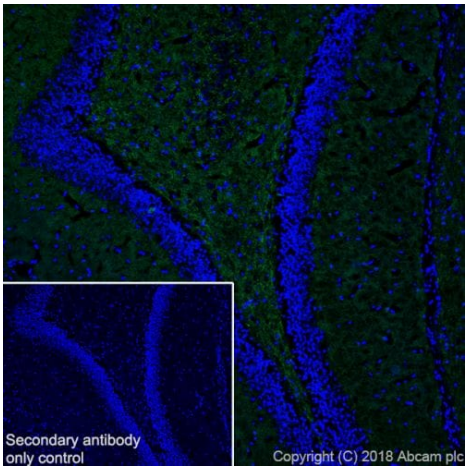
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling VGluT1 with **ab227805** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Specific cytoplasmic staining on mouse hippocampus, positive staining was also observed on mouse cerebral cortex and thalamus (PMID: 29532891). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



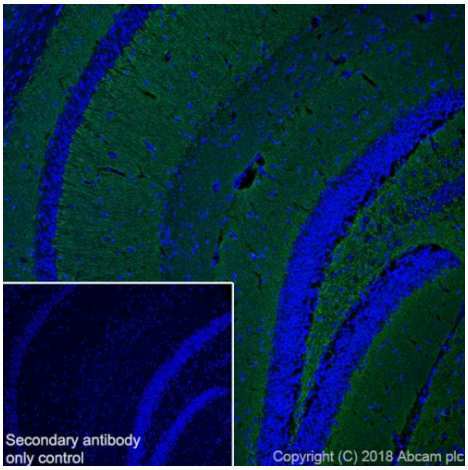
Immunohistochemistry (Frozen sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat hippocampus tissue labeling VGluT1 with **ab227805** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Cytoplasmic staining on rat hippocampus (PMID: 29532891).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).



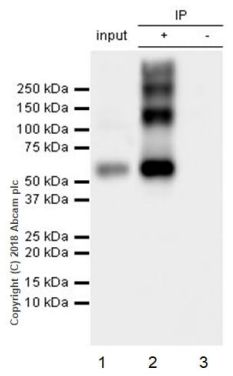
Immunohistochemistry (Frozen sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse hippocampus tissue labeling VGluT1 with **ab227805** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Cytoplasmic staining on mouse hippocampus (PMID: 29532891).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).



Immunoprecipitation - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

VGluT1 was immunoprecipitated from 0.35 mg of mouse brain lysate with **ab227805** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab227805** at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Mouse brain lysate 10 µg (Input).

Lane 2: **ab227805** IP in mouse brain lysate.

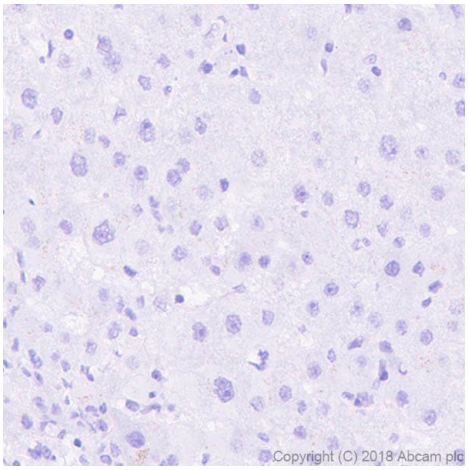
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab227805** in mouse brain lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

The pattern of oligomeric/dimeric forms observed is consistent with what has been described in the literature (PMID: 15192755).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).



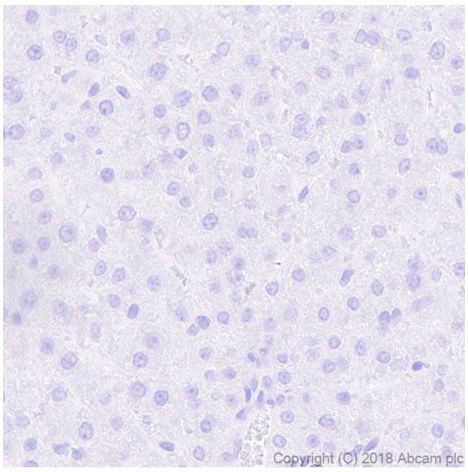
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of paraffin-embedded human tissue labeling VGluT1 with **ab227805** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Counter stained with hematoxylin.

Negative control: No staining on human liver.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



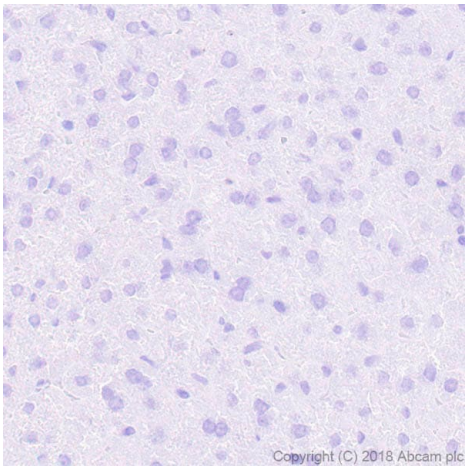
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of paraffin-embedded rat liver tissue labeling VGluT1 with **ab227805** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Counter stained with hematoxylin.

Negative control: No staining on rat liver.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



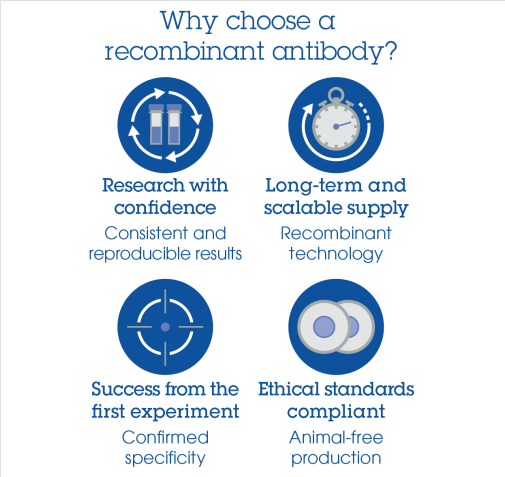
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

Immunohistochemical analysis of paraffin-embedded mouse liver tissue labeling VGluT1 with **ab227805** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Counter stained with hematoxylin.

Negative control: No staining on mouse liver.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab227805**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Anti-VGluT1 antibody [EPR22269] - BSA and Azide free (ab242017)

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