

### Anti-VGLUT2 antibody [EPR21085] ab216463

重组 RabMAb

★★★★☆ **1 Abreviews** **5 References** **11 图像**

#### 概述

产品名称	Anti-VGLUT2抗体[EPR21085]
描述	兔单克隆抗体[EPR21085] to VGLUT2
宿主	Rabbit
经测试应用	适用于: ICC/IF, WB, IHC-P, IHC-Fr, IP
种属反应性	与反应: Mouse, Rat
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Mouse cerebral cortex, hypothalamus, hippocampus and brain lysates; Rat brain, cortex and cerebellum lysates; IHC-P: Mouse brain and cerebrum tissues; Rat brain tissue; IHC-Fr: Mouse thalamus tissue; Rat cortex tissue; IP: Mouse brain lysate; ICC/IF: Rat and rat midbrain neuron cells.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol, 0.05% BSA</p>
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR21085

同种型

IgG

## 应用

### The Abpromise guarantee

**Abpromise™**承诺保证使用ab216463于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		1/250.
WB		1/1000. Predicted molecular weight: 64 kDa.
IHC-P		1/500. 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. Use at 1/500 dilution for mouse and at 1/100 dilution for rat. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.

## 靶标

### 功能

Mediates the uptake of glutamate into synaptic vesicles at presynaptic nerve terminals of excitatory neural cells. May also mediate the transport of inorganic phosphate.

### 组织特异性

Predominantly expressed in adult brain. Expressed in amygdala, caudate nucleus, cerebral cortex, frontal lobe, hippocampus, medulla, occipital lobe, putamen, spinal cord, substantia nigra, subthalamic nucleus, temporal lobe and thalamus.

### 序列相似性

Belongs to the major facilitator superfamily. Sodium/anion cotransporter family. VGLUT subfamily.

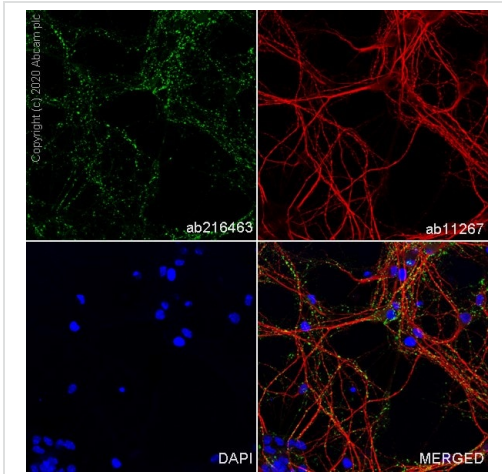
### 发展阶段

Expressed in fetal brain.

### 细胞定位

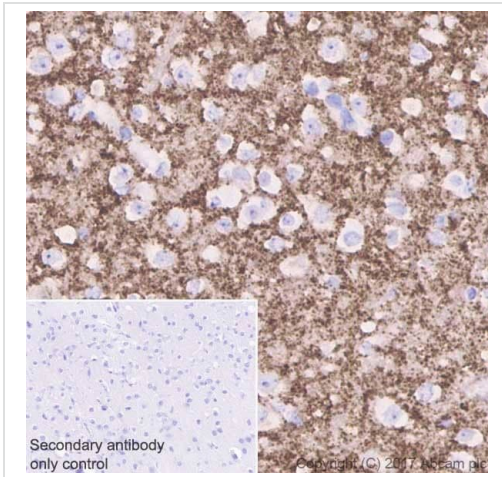
Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane. Membrane. Cell junction, synapse, synaptosome.

## 图片



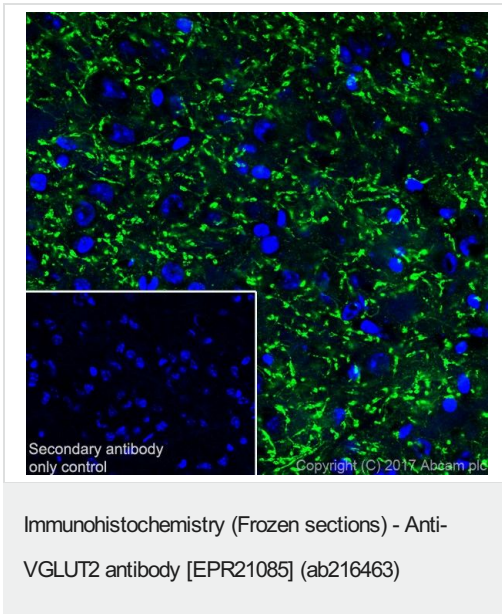
Immunocytochemistry/ Immunofluorescence - Anti-VGLUT2 antibody [EPR21085] (ab216463)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse midbrain neuron cells labelling VGLUT2 with ab216463 at 1/250 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing positive staining in mouse midbrain neuron cell. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. **ab11267** Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 dilution (4 µg/mL) followed by **ab150120** Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (2 µg/mL) (Red). The nuclear counterstain was DAPI (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGLUT2 antibody [EPR21085] (ab216463)

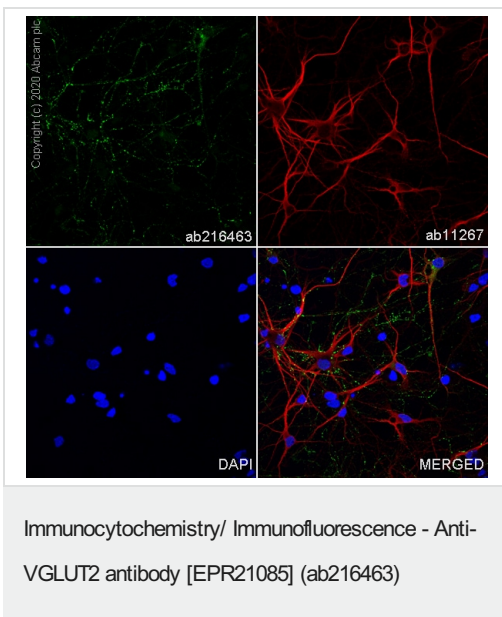
Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling VGLUT2 with ab216463 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Granularly cytoplasmic staining in mouse cerebrum is observed (PMID: 24804702). Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



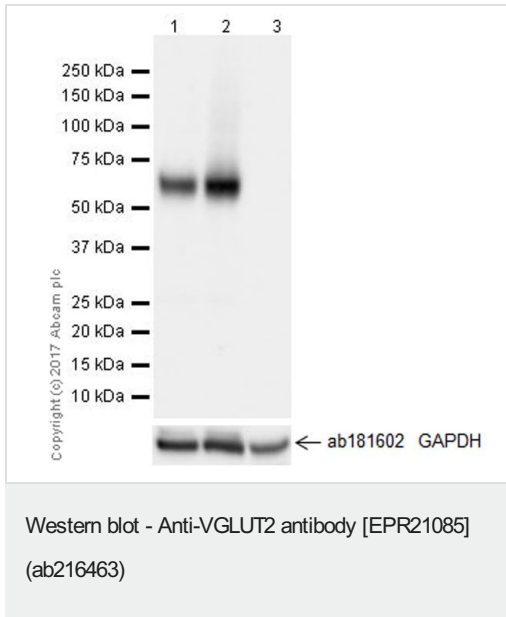
Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen sections of mouse thalamus tissue labeling VGLUT2 with ab216463 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Positive staining in mouse thalamus.

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.



Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized rat midbrain neuron cells labelling VGLUT2 with ab216463 at 1/250 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing positive staining in rat midbrain neuron cell. Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. **ab11267** Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 dilution (4 µg/mL) followed by **ab150120** Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution (2 µg/mL) (Red). The nuclear counterstain was DAPI (Blue).



**All lanes :** Anti-VGLUT2 antibody [EPR21085] (ab216463) at 1/1000 dilution

**Lane 1 :** Mouse cerebral cortex lysate

**Lane 2 :** Mouse hypothalamus lysate

**Lane 3 :** Mouse spleen lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

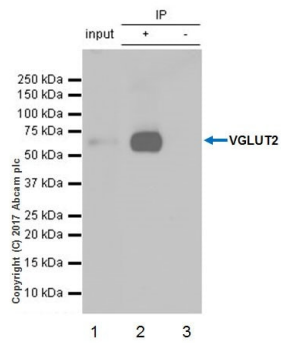
**Predicted band size:** 64 kDa

**Observed band size:** 64 kDa

**Exposure time:** 24 seconds

Blocking/Dilution buffer: 5% NFD/MTBST.

Target is expressed in neurons, with spleen acting as a negative control (PMID: 15682395, PMID: 15102489). Note that the lysates were not boiled prior to gel loading to avoid aggregation of this membrane protein. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.



Immunoprecipitation - Anti-VGLUT2 antibody  
[EPR21085] (ab216463)

VGLUT2 was immunoprecipitated from 0.35 mg of mouse brain lysate with ab216463 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab216463 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10,000 dilution

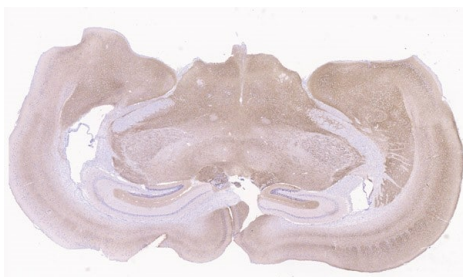
**Lane 1:** Mouse brain lysate 10 µg (Input).

**Lane 2:** ab216463 IP in mouse brain lysate.

**Lane 3:** Rabbit monoclonal IgG ([ab172730](#)) instead of ab216463 in mouse brain lysate.

**Exposure time:** 10 seconds.

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



Secondary antibody  
only control

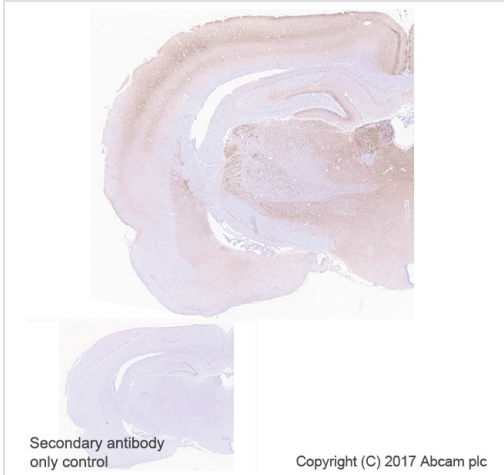
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Immunohistochemistry (Formalin/PFA-fixed paraffin-  
embedded sections) - Anti-VGLUT2 antibody  
[EPR21085] (ab216463)

Immunohistochemical analysis of paraffin-embedded mouse brain tissue labeling VGLUT2 with ab216463 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on mouse forebrain, including cerebral cortex and diencephalon is observed (PMID: 16217795). 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.

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

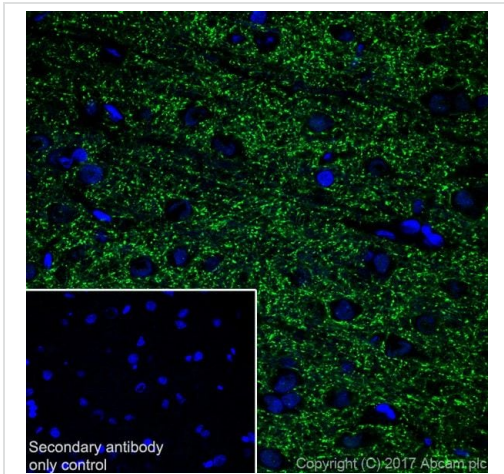


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VGLUT2 antibody [EPR21085] (ab216463)

Immunohistochemical analysis of paraffin-embedded rat brain tissue labeling VGLUT2 with ab216463 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on rat forebrain including cerebral cortex and diencephalon is observed (PMID: 16217795). 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.

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

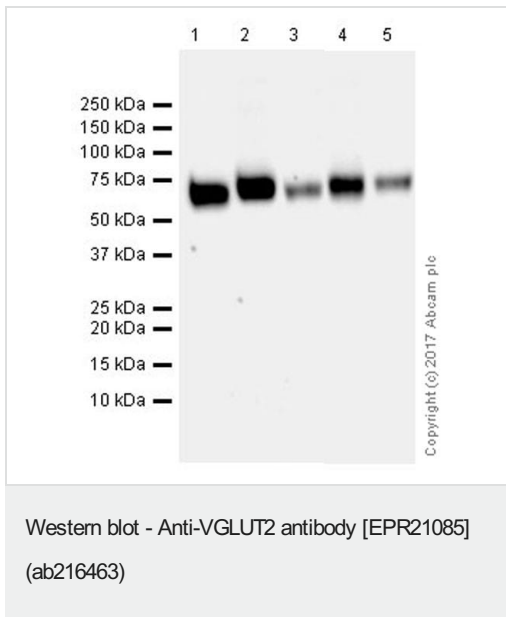


Immunohistochemistry (Frozen sections) - Anti-VGLUT2 antibody [EPR21085] (ab216463)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen sections of rat cortex tissue labeling VGLUT2 with ab216463 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Positive staining in rat cortex.

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<sup>®</sup> 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



**All lanes** : Anti-VGLUT2 antibody [EPR21085] (ab216463) at 1/1000 dilution

**Lane 1** : Rat brain lysate

**Lane 2** : Rat cortex lysate

**Lane 3** : Rat cerebellum lysate

**Lane 4** : Mouse brain lysate

**Lane 5** : Mouse hippocampus lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

**Predicted band size:** 64 kDa

**Observed band size:** 64 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

Note that the lysates were not boiled prior to gel loading to avoid aggregation of this membrane protein. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.



Why choose a recombinant antibody?

**Research with confidence**  
Consistent and reproducible results

**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Anti-VGLUT2 antibody [EPR21085] (ab216463)

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

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