

Product datasheet

Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] ab76321

Recombinant RabMAb

[19 References](#) [8 Images](#)

Overview

Product name	Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148]
Description	Rabbit monoclonal [EPR2148] to Glutamate Receptor 1 (AMPA subtype) (phospho S845)
Host species	Rabbit
Tested applications	Suitable for: WB, Dot blot Unsuitable for: Flow Cyt, ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal, rat and mouse brain tissue lysates.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - 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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2148

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab76321 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. Predicted molecular weight: 102 kDa. For unpurified use at 1/1000 - 1/10000.
Dot blot		1/1000.

Application notes

Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

Target

Function

Ionotropic glutamate receptor. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist.

Tissue specificity

Widely expressed in brain.

Sequence similarities

Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIA1 subfamily.

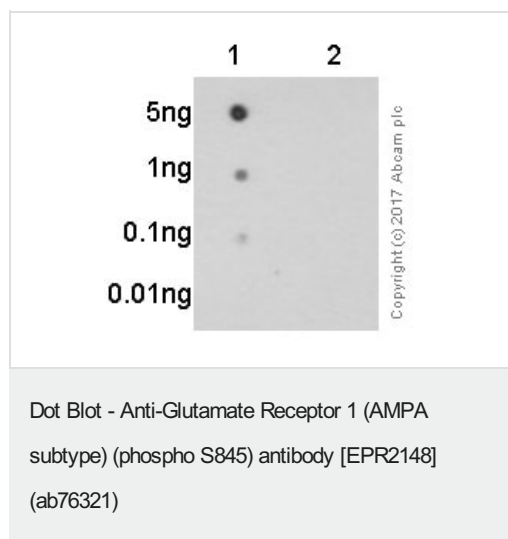
Post-translational modifications

Palmitoylated. Depalmitoylated upon glutamate stimulation. Cys-603 palmitoylation leads to Golgi retention and decreased cell surface expression. In contrast, Cys-829 palmitoylation does not affect cell surface expression but regulates stimulation-dependent endocytosis.

Cellular localization

Cell membrane. Endoplasmic reticulum membrane. Cell junction > synapse > postsynaptic cell membrane. Interaction with CACNG2 promotes cell surface expression.

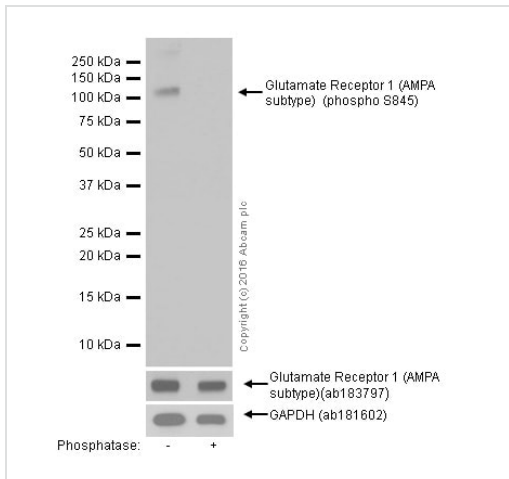
Images



Dot blot analysis of Glutamate Receptor 1 (AMPA subtype) labelling Glutamate Receptor 1 (AMPA subtype) (phospho S845) with ab76321 at 1/1000 in 5% NFDm/TBST. Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) (1/100,000) was used as the secondary antibody. Exposed for 3 minutes.

Lane 1: Glutamate Receptor 1 (AMPA subtype) (pS845) phospho peptide

Lane 2: Glutamate Receptor 1 (AMPA subtype) non-phospho peptide



Western blot - Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321)

All lanes : Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321) at 1/1000 dilution

Lane 1 : Mouse hippocampus whole cell lysates

Lane 2 : Mouse hippocampus whole cell lysates. The membrane was incubated with phosphatase.

Lysates/proteins at 15 µg per lane.

Secondary

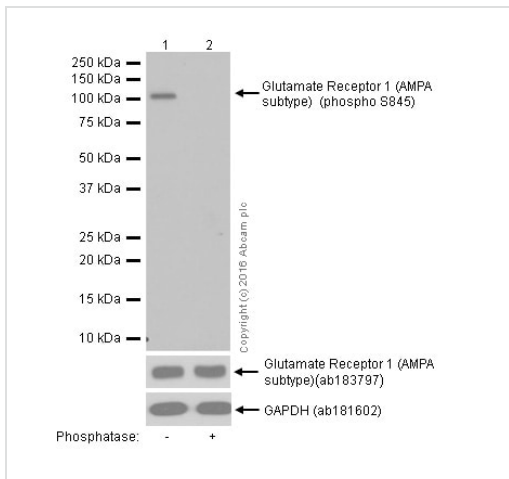
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 102 kDa

Observed band size: 106 kDa

Exposure time: 3 minutes

Blocked in 5% NFDm/TBST



Western blot - Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321)

All lanes : Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321) at 1/1000 dilution

Lane 1 : Human cerebellum whole cell lysates

Lane 2 : Human cerebellum whole cell lysates. The membrane was incubated with phosphatase.

Lysates/proteins at 15 µg per lane.

Secondary

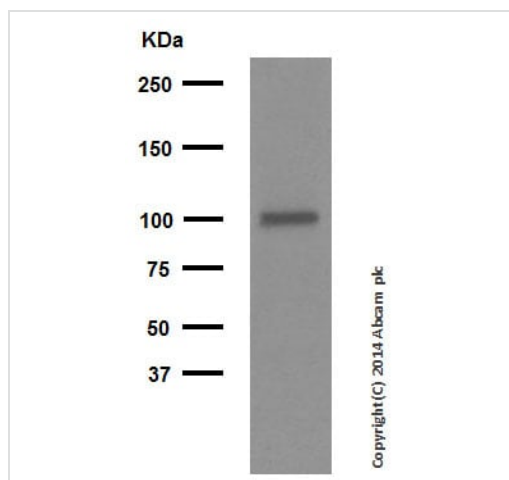
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 102 kDa

Observed band size: 106 kDa

Exposure time: 3 minutes

Blocked with 5% NFDm/TBST



Western blot - Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321)

Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321) at 1000 cells (purified) + Human fetal brain tissue lysate at 10 µg

Secondary

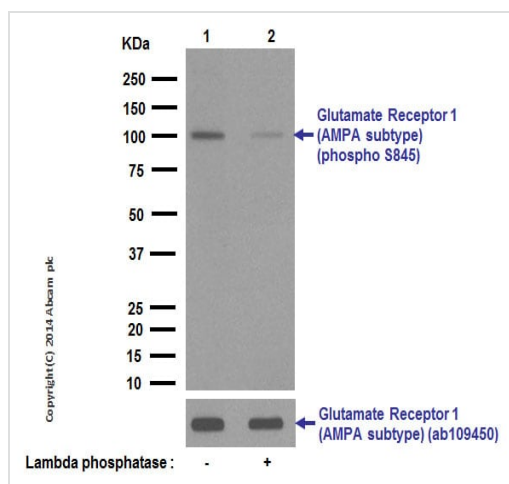
Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 102 kDa

Observed band size: 102 kDa

Blocking buffer: 5% NFDM/TBST.

Diluting buffer: 1%BSA /TBST.



Western blot - Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321)

All lanes : Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321) at 1/20000 dilution (purified)

Lane 1 : Mouse brain tissue lysate, untreated

Lane 2 : Mouse brain tissue lysate, treated with Lambda phosphatase

Lysates/proteins at 10 µg per lane.

Secondary

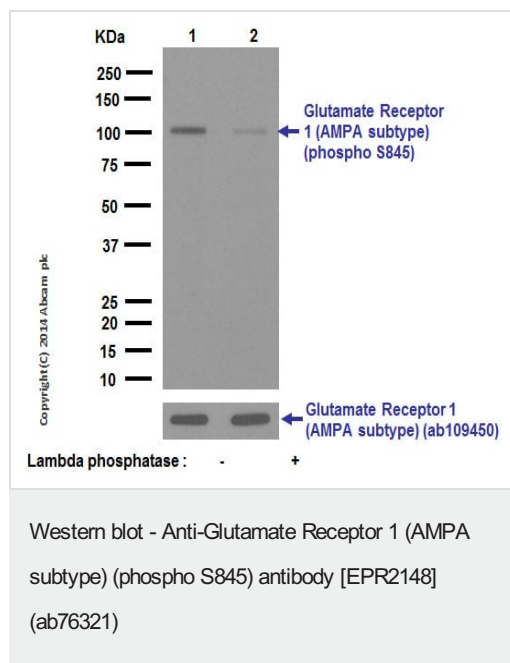
All lanes : Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 102 kDa

Observed band size: 102 kDa

Blocking buffer: 5% NFDM/TBST.

Diluting buffer: 1%BSA /TBST.



All lanes : Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321) at 1/20000 dilution (purified)

Lane 1 : Rat brain tissue lysate, untreated

Lane 2 : Rat brain tissue lysate, treated with Lambda phosphatase

Lysates/proteins at 10 µg per lane.

Secondary

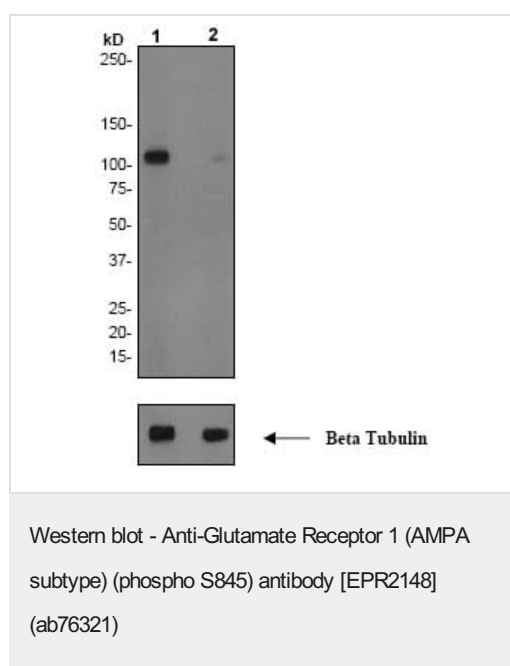
All lanes : Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 102 kDa

Observed band size: 102 kDa

Blocking buffer: 5% NFDM/TBST.

Diluting buffer: 1%BSA /TBST.



All lanes : Anti-Glutamate Receptor 1 (AMPA subtype) (phospho S845) antibody [EPR2148] (ab76321) at 1/20000 dilution (unpurified)

Lane 1 : Rat brain tissue lysate, untreated

Lane 2 : Rat brain tissue lysate treated with Lambda Phosphatase

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP-conjugated goat anti-rabbit IgG at 1/1000 dilution

Predicted band size: 102 kDa

Observed band size: 106 kDa

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-Glutamate Receptor 1 (AMPA subtype)
(phospho S845) antibody [EPR2148] (ab76321)

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

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