

Product datasheet

Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308] ab32436

Recombinant RabMAb

[6 References](#) [5 Images](#)

Overview

Product name	Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308]
Description	Rabbit monoclonal [E308] to Glutamate Receptor 1 (AMPA subtype)
Host species	Rabbit
Specificity	This antibody is specific for Glutamate Receptor 1 (AMPA subtype).
Tested applications	Suitable for: WB, IHC-P, IP Unsuitable for: Flow Cyt or ICC
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Glutamate Receptor 1 (AMPA subtype) aa 1-100 (N terminal). The exact sequence is proprietary.
Positive control	WB: SH-SY5Y cell lysate. IHC: human brain tissue. IP: SH-SY5Y cell lysate
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 <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

Purity	Protein A purified
Clonality	Monoclonal
Clone number	E308
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab32436 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. Detects a band of approximately 106 kDa (predicted molecular weight: 101 kDa).
IHC-P		1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		1/50.

Application notes Is unsuitable for Flow Cyt or ICC.

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.

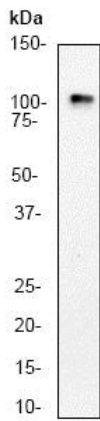
Tissue specificity Widely expressed in brain.

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

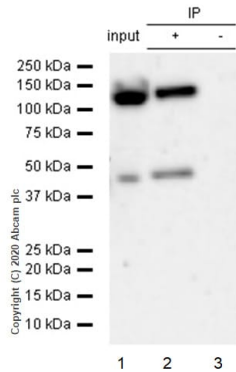


Western blot - Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308] (ab32436)

Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308] (ab32436) at 1/1000 dilution + SH-SY5Y cell lysate.

Predicted band size: 101 kDa

Observed band size: 106 kDa



Immunoprecipitation - Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308] (ab32436)

Purified ab32436 at 1/50 dilution (2µg) immunoprecipitating Glutamate Receptor 1 (AMPA subtype) in SH-SY5Y whole cell lysate.

Lane 1 (input): SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate 10µg

Lane 2 (+): ab32436 + SH-SY5Y whole cell lysate.

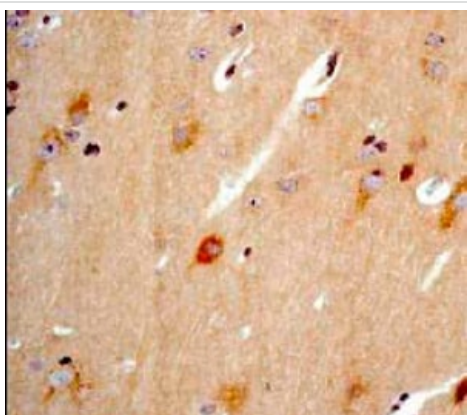
Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of ab32436 in SH-SY5Y whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDm/TBST.

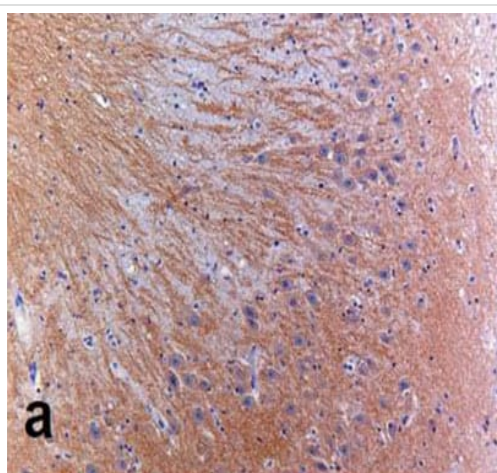
Diluting buffer and concentration: 5% NFDm/TBST.

Observed band size: 106 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308] (ab32436)

Ab32436, at a 1/50 dilution, staining Glutamate Receptor 1 (AMPA subtype) in paraffin embedded human brain tissue by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutamate Receptor 1 (AMPA subtype) antibody [E308] (ab32436)

Image from van Vuurden DG et al., PLoS One. 2009 Jun 18;4(6):e5953. Fig 2.; doi:10.1371/journal.pone.0005953; June 18, 2009, PLoS ONE 4(6): e5953.

Immunohistochemical analysis of Human hippocampus tissue, staining Glutamate Receptor 1 (AMPA subtype) with ab32436.

Antigen retrieval was performed by heat mediation in a citrate buffer (pH 6). Samples were blocked with 10% normal goat serum for 30 minutes before incubating with primary antibody (1/20) for 2 hours. A biotinylated anti-rabbit IgG was used as the secondary antibody and staining was detected using DAB.

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)
antibody [E308] (ab32436)

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