

## Product datasheet

# Anti-Ionotropic Glutamate receptor 2 antibody [EPR5032] ab133477

Recombinant RabMAb

★★★★★ 1 Abreviews 7 References 3 Images

### Overview

<b>Product name</b>	Anti-Ionotropic Glutamate receptor 2 antibody [EPR5032]
<b>Description</b>	Rabbit monoclonal [EPR5032] to Ionotropic Glutamate receptor 2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, Flow Cyt, WB, ICC/IF <b>Unsuitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human Ionotropic Glutamate receptor 2 aa 150-250. The exact sequence is proprietary.
<b>Positive control</b>	WB: Human fetal brain, adult brain, hippocampus, hypothalamus, and midbrain tissue lysates. ICC/IF: SK-N-SH cells. Flow Cyt: SH-SY5Y cells.
<b>General notes</b>	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> .  This product is a <a href="#">recombinant rabbit monoclonal antibody</a> .

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR5032
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab133477** 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		1/10 - 1/100.
Flow Cyt		1/200.
WB	★★★★★	1/1000 - 1/10000. Predicted molecular weight: 98 kDa.
ICC/IF		1/100 - 1/250.

**Application notes** Is unsuitable for IHC-P.

## Target

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### 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. In the presence of CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of glutamate.

### Sequence similarities

Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIA2 subfamily.

### Post-translational modifications

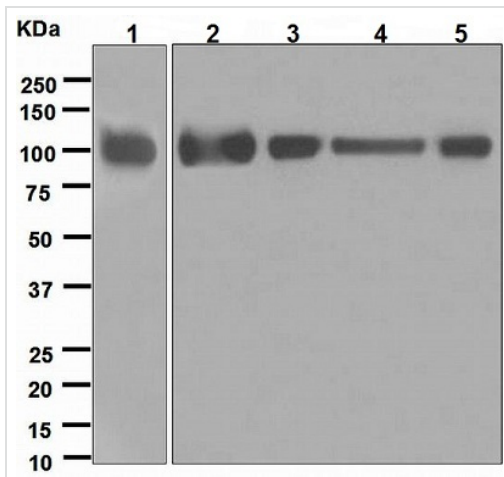
Palmitoylated. Depalmitoylated upon glutamate stimulation. Cys-610 palmitoylation leads to Golgi retention and decreased cell surface expression. In contrast, Cys-836 palmitoylation does not affect cell surface expression but regulates stimulation-dependent endocytosis.

### Cellular localization

Cell membrane. Endoplasmic reticulum membrane. Cell junction > synapse > postsynaptic cell membrane. Interaction with CACNG2, CNIH2 and CNIH3 promotes cell surface expression.

## Images

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Western blot - Anti-Ionotropic Glutamate receptor 2 antibody [EPR5032] (ab133477)

**All lanes :** Anti-Ionotropic Glutamate receptor 2 antibody [EPR5032] (ab133477) at 1/1000 dilution

**Lane 1 :** Fetal brain lysate

**Lane 2 :** Human brain lysate

**Lane 3 :** Human hippocampus lysate

**Lane 4 :** Human hypothalamus lysate

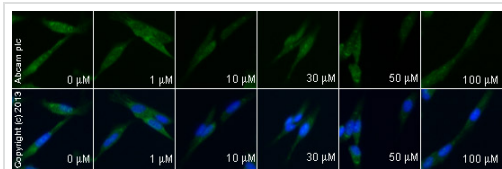
**Lane 5 :** Human midbrain lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** HRP labelled goat anti-rabbit at 1/2000 dilution

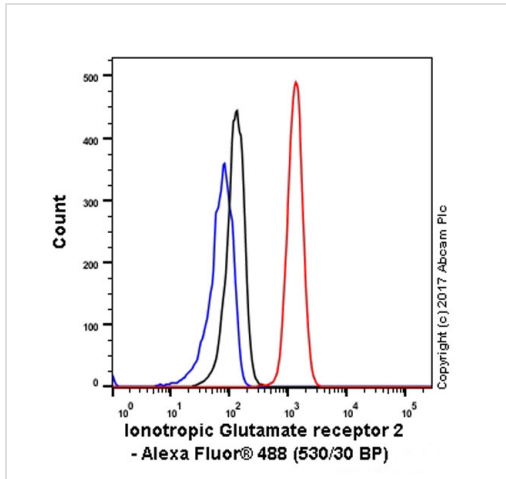
**Predicted band size:** 98 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Ionotropic Glutamate receptor 2 antibody [EPR5032] (ab133477)

ab133477 staining GluR2 in SK-N-SH cells treated with VU 0360223 (ab120803), by ICC/IF. Decrease of GluR2 expression correlates with increased concentration of VU 0360223, as described in literature.

The cells were incubated at 37°C for 6h in media containing different concentrations of ab120803 (VU 0360223) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab133477 (1/200 dilution) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 anti-rabbit polyclonal antibody (ab96899) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.



Flow Cytometry - Anti-Ionotropic Glutamate receptor 2 antibody [EPR5032] (ab133477)

Flow cytometry analysis of SH-SY5Y ( Human neuroblastoma epithelial cell) cells labeling Ionotropic Glutamate receptor 2 (red) with ab133477 at a 1/200 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (Black) (ab172730). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).

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