

Anti-Ionotropic glutamate receptor 2 + 3 Antibody [JE33-28]

HA721405



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse, Rat, Human
Applications:	WB
Molecular Wt:	Predicted band size: 99 kDa
Clone number:	JE33-28

Description:	Glutamate ionotropic receptor AMPA type subunit 2 (Glutamate receptor 2, or GluR-2) is a protein that in humans is encoded by the GRIA2 (or GLUR2) gene and it is a subunit found in the AMPA receptors. Glutamate receptor 3 is a protein that in humans is encoded by the GRIA3 gene. Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. GRIA2 product belongs to a family of glutamate receptors that are sensitive to alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA), called AMPA receptors, and function as ligand-activated cation channels. These channels are assembled from a combination of 4 subunits, encoded by 4 genes (GRIA1-4). The subunit encoded by this gene (GRIA2) is subject to RNA editing which renders the receptor that it becomes part of impermeable to calcium ions (Ca ²⁺). Human and animal studies suggest that the RNA editing is essential for normal brain function, and defective RNA editing of GRIA2 may be relevant to the etiology of amyotrophic lateral sclerosis (ALS). Alternative splicing, resulting in transcript variants encoding different isoforms, has been noted for GRIA2, which includes the generation of flip and flop isoforms that vary in their signal transduction properties. Genome studies have uncovered a tentative link between defective GRIA3 variants and a highly elevated risk of schizophrenia.
Immunogen:	Synthetic peptide within Human GRIA2 aa 834-883 / 883.
Positive control:	Mouse brain tissue lysate, rat brain tissue lysate.
Subcellular location:	Cell membrane, Endoplasmic reticulum membrane, Postsynaptic cell membrane, Postsynaptic density membrane.
Database links:	SwissProt: P42262 Human P42263 Human P23819 Mouse Q9Z2W9 Mouse P19491 Rat P19492 Rat
Recommended Dilutions:	
WB	1:1,000
Storage Buffer:	1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.
Purity:	Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

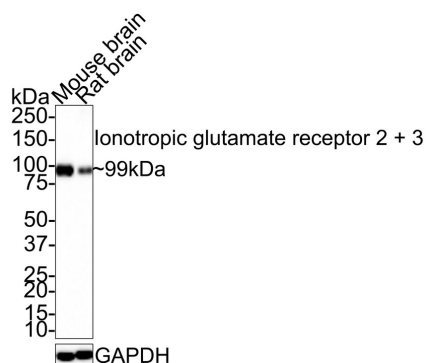


Fig1: Western blot analysis of Ionotropic glutamate receptor 2 + 3 on different lysates with Rabbit anti-Ionotropic glutamate receptor 2 + 3 antibody (HA721405) at 1/1,000 dilution.

Lane 1: Mouse brain tissue lysate

Lane 2: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 99 kDa

Observed band size: 99 kDa

Exposure time: 1 minute;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721405) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Cai Q et al. Novel GRIA2 variant in a patient with atypical autism spectrum disorder and psychiatric symptoms: a case report. BMC Pediatr. 2022 Nov
2. Martinez-Esteve Melnikova A et al. The p.Glu787Lys variant in the GRIA3 gene causes developmental and epileptic encephalopathy mimicking structural epilepsy in a female patient. Eur J Med Genet. 2022 Mar

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