BOSTER
antibody and ELISA experts

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Anti-Ionotropic Glutamate receptor 4/GRIA4 Antibody Picoband™

Catalog Number: PB9207

About GRIA4

Glutamate receptor 4 also named GRIA4 or GLUR4, is a protein that in humans is encoded by the GRIA4 gene. It is mapped to 11q22.3. This gene is a member of a family of L-glutamate-gated ion channels that mediate fast synaptic excitatory neurotransmission. These channels are also responsive to the glutamate agonist, alpha-amino-3-hydroxy-5-methyl-4-isoxazolpropionate (AMPA). Some haplotypes of this gene show a positive association with schizophrenia. What's more, glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. These receptors are heteromeric protein complexes composed of multiple subunits, arranged to form ligand-gated ion channels.

Overview

Product Name	Anti-Ionotropic Glutamate receptor 4/GRIA4 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Ionotropic Glutamate receptor 4/GRIA4 Antibody Picoband™ catalog # PB9207. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P48058

Technical Details

Immunogen	E.coli-derived human GRIA4 recombinant protein (Position: Q176-K350). Human GRIA4 shares 99% amino acid (aa) sequence identity with both mouse and rat GRIA4.
Predicted Reactive Species	Bovine, Horse, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Ionotropic Glutamate receptor 4/GRIA4 Antibody Picoband™ (PB9207) Images

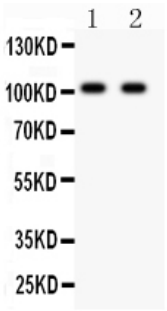

Figure 1. Western blot analysis of GRIA4 using anti-GRIA4 antibody (PB9207).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: Rat Brain Tissue Lysate,
Lane 2: Mouse Brain Tissue Lysate.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GRIA4 antigen affinity purified polyclonal antibody (Catalog # PB9207) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GRIA4 at approximately 101KD. The expected band size for GRIA4 is at 101KD.

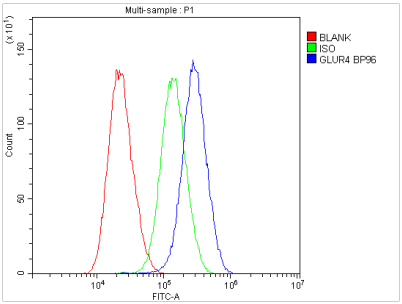

Figure 2. Flow Cytometry analysis of A549 cells using anti-GRIA4 antibody (PB9207).
Overlay histogram showing A549 cells stained with PB9207 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRIA4 Antibody (PB9207,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.