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Anti-GRIK1 Antibody Picoband™

Catalog Number: PB9208

About GRIK1

Glutamate receptor, ionotropic, kainate 1, also known as GLUR5, is a protein that in humans is encoded by the GRIK1 gene. It is mapped to 21q21.3. This gene encodes one of the many ionotropic glutamate receptor (GluR) subunits that function as a ligand-gated ion channel. The specific GluR subunit encoded by this gene is of the kainate receptor subtype. Receptor assembly and intracellular trafficking of ionotropic glutamate receptors are regulated by RNA editing and alternative splicing. These receptors mediate excitatory neurotransmission and are critical for normal synaptic function. Exons of this gene are interspersed with exons from the C21or f41 gene, which is transcribed in the same orientation as this gene but does not seem to encode a protein.

Overview

Product Name	Anti-GRIK1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GRIK1 Antibody Picoband™ catalog # PB9208. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, 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	P39086

Technical Details

Immunogen	E.coli-derived human GRIK1 recombinant protein (Position: R271-I450). Human GRIK1 shares 88% and 94% amino acid (aa) sequences identity with mouse and rat GRIK1, respectively.
Predicted Reactive Species	Bovine, Horse, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat

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Anti-GRIK1 Antibody Picoband™ (PB9208) Images

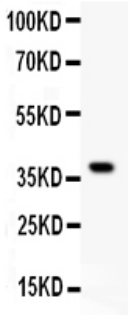

Figure 1. Western blot analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: recombinant human GRIK1 protein 0.5 ng.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-GRIK1 antigen affinity purified polyclonal antibody (Catalog # PB9208) 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 1:5000 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 GRIK1 at approximately 40 kDa. The expected band size for GRIK1 is at 40 kDa.

Figure 2. Western blot analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
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 30 ug of sample under reducing conditions.
Lane 1: mouse brain tissue lysates,
Lane 2: mouse brain tissue lysates,
Lane 3: human SHG whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-GRIK1 antigen affinity purified polyclonal antibody (Catalog # PB9208) 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 1:5000 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 GRIK1 at approximately 104 kDa. The expected band size for GRIK1 is at 104 kDa.

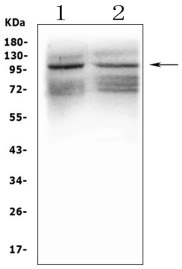

Figure 3. Western blot analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat brain tissue lysates,
Lane 2: mouse brain tissue lysates,
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

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hour at RT. The membrane was incubated with rabbit anti-GRIK1 antigen affinity purified polyclonal antibody (Catalog # PB9208) 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 GRIK1 at approximately 104KD. The expected band size for GRIK1 is at 104KD.

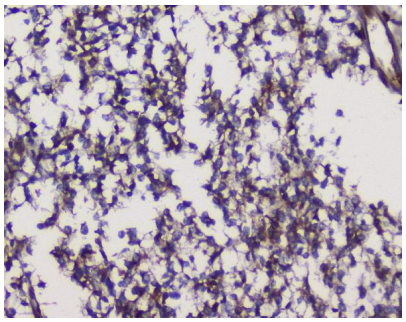

Figure 4. IHC analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
GRIK1 was detected in paraffin-embedded section of human glioma tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GRIK1 Antibody (PB9208) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

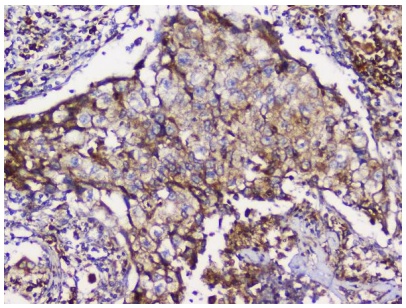

Figure 5. IHC analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
GRIK1 was detected in paraffin-embedded section of human Lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GRIK1 Antibody (PB9208) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

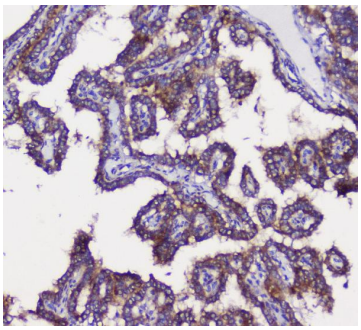

Figure 6. IHC analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
GRIK1 was detected in paraffin-embedded section of human thyroid cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GRIK1 Antibody (PB9208) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 7. IHC analysis of GRIK1 using anti-GRIK1 antibody (PB9208).
GRIK1 was detected in paraffin-embedded section of mouse brain tissue tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat

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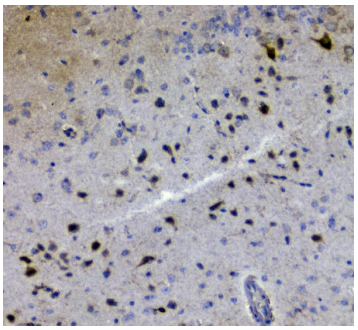

serum. The tissue section was then incubated with 1ug/ml rabbit anti-GRIK1 Antibody (PB9208) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Anti-GRIK1 Antibody ™