BOSTER BIOLOGICAL TECHNOLOGY
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Anti-KCNQ4 Antibody Picoband®

Catalog Number: A03659-3

About KCNQ4

The protein encoded by this gene forms a potassium channel that is thought to play a critical role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium channel or possibly a heteromultimeric channel in association with the protein encoded by the KCNQ3 gene. Defects in this gene are a cause of nonsyndromic sensorineural deafness type 2 (DFNA2), an autosomal dominant form of progressive hearing loss. Two transcript variants encoding different isoforms have been found for this gene.

Overview

Product Name	Anti-KCNQ4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-KCNQ4 Antibody Picoband® catalog # A03659-3. Tested in WB, IP, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IP, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P56696

Technical Details

Immunogen	E.coli-derived human KCNQ4 recombinant protein (Position: R395-D695).

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunoprecipitation, 0.5-2 ug/ml, Human ELISA, 0.1-0.5 ug/ml

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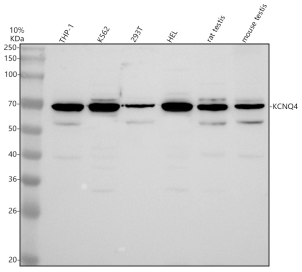
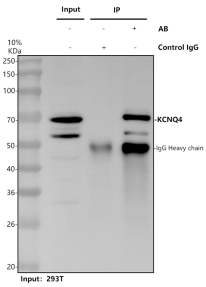
Anti-KCNQ4 Antibody Picoband® (A03659-3) Images



Western blot analysis of KCNQ4 using anti-KCNQ4 antibody (A03659-3). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human THP-1 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: human HEL whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: mouse testis tissue 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-KCNQ4 antigen affinity purified polyclonal antibody (A03659-3) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for KCNQ4 at approximately 70 kDa. The expected band size for KCNQ4 is at 77 kDa.



Immunoprecipitating KCNQ4 in 293T whole cell lysate. Western blot analysis of KCNQ4 using anti-KCNQ4 antibody (A03659-3). Lane 1: 293T whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-KCNQ4 antibody in 293T whole cell lysate, Lane 3: anti-KCNQ4 antibody (2ug) + 293T whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-KCNQ4 antigen affinity purified polyclonal antibody (A03659-3) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for KCNQ4 at approximately 70 kDa. The expected band size for KCNQ4 is at 77 kDa.

Anti-KCNQ4 Antibody

For Research Use Only. Not for use in diagnostic procedures.