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antibody and ELISA experts

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Anti-muscarinic Acetylcholine Receptor 1/CHRM1 Antibody

Catalog Number: PA2202

About CHRM1

Muscarinic acetylcholine receptor M1, also known as cholinergic receptor, muscarinic 1, is a muscarinic receptor. This gene is mapped to 11q12.3. The muscarinic cholinergic receptors belong to a larger family of G protein-coupled receptors. The functional diversity of these receptors is defined by the binding of acetylcholine and includes cellular responses such as adenylate cyclase inhibition, phosphoinositide degeneration, and potassium channel mediation. Muscarinic receptors influence many effects of acetylcholine in the central and peripheral nervous system. The muscarinic cholinergic receptor 1 is involved in mediation of vagally-induced bronchoconstriction and in the acid secretion of the gastrointestinal tract.

Overview

Product Name	Anti-muscarinic Acetylcholine Receptor 1/CHRM1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-muscarinic Acetylcholine Receptor 1/CHRM1 Antibody catalog # PA2202. Tested in IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 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	P11229

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human muscarinic Acetylcholine Receptor 1, identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Predicted Reactive Species	Hamster
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), IHC(F) and ICC.
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, Rat, Human, Mouse, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human

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Anti-muscarinic Acetylcholine Receptor 1/CHRM1 Antibody (PA2202) Images

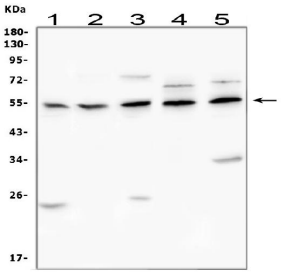

Figure 1. Western blot analysis of CHRM1 using anti-CHRM1 antibody (PA2202).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat brain tissue lysates
Lane 2: rat C6 whole cell lysates
Lane 3: mouse RAW246.7 whole cell lysates
Lane 4: human U2OS whole cell lysates
Lane 5: human SHG-44 whole cell 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 hour at RT. The membrane was incubated with rabbit anti-CHRM1 antigen affinity purified polyclonal antibody (Catalog # PA2202) 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 CHRM1 at approximately 55KD. The expected band size for CHRM1 is at 51KD.

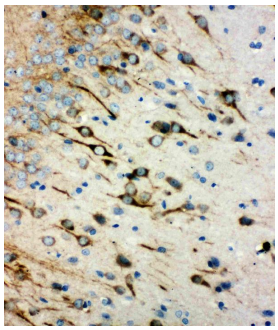

Figure 2. IHC analysis of CHRM1 using anti-CHRM1 antibody (PA2202).
CHRM1 was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CHRM1 Antibody (PA2202) 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.

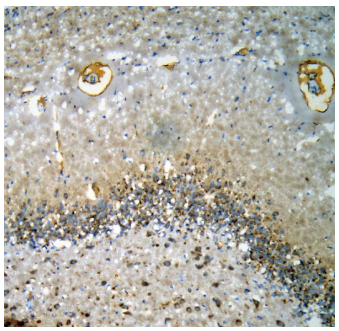

Figure 3. IHC analysis of CHRM1 using anti-CHRM1 antibody (PA2202).
CHRM1 was detected in frozen section of rat brain tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CHRM1 Antibody (PA2202) overnight at 4°C. Biotinylated goat 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 4. IF analysis of CHRM1 using anti-CHRM1 antibody (PA2202).
CHRM1 was detected in immunocytochemical section of

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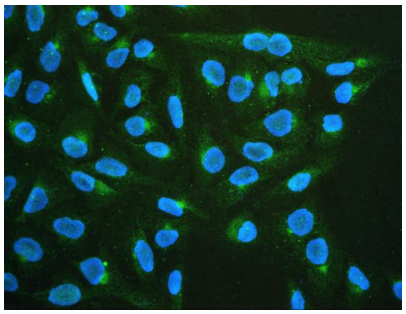

U20S cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-CHRM1 Antibody (PA2202) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

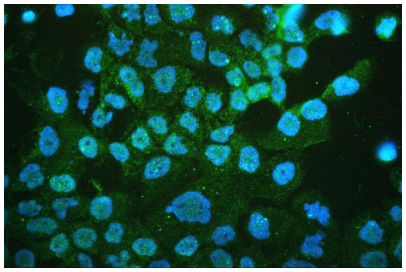

Figure 5. IF analysis of CHRM1 using anti-CHRM1 antibody (PA2202).
CHRM1 was detected in immunocytochemical section of A431 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-CHRM1 Antibody (PA2202) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

1 Publications Citing This Product

1. PubMed ID: 10.5114/aoms.2019.83760, The decrease in hippocampal transient receptor potential M2 (TRPM2) channel and muscarinic acetylcholine receptor 1 (CHRM1) is associated with memory loss in a surgical menopause rat model

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