Datasheet for ABIN7043062

anti-Muscarinic Acetylcholine Receptor M2 antibody (AA 225-356)

2 Images

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Overview

Quantity:	25 µL
Target:	Muscarinic Acetylcholine Receptor M2 (CHRM2)
Binding Specificity:	AA 225-356
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Muscarinic Acetylcholine Receptor M2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (IHC), Immunochromatography (IC), Immunoprecipitation (IP)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Muscarinic Acetylcholine Receptor M2
Immunogen:	Immunogen: GST fusion protein Immunogen Sequence: GST fusion protein with the sequence VANQDPVSPSLVQGRIVKPN NNNMPSSDDGLEHNKIQNGKAPRDPVTENCVQGEEKESSNDSTSV SAVASNMRDDEITQDENTVSTSLGHSKDENSKQTCIRIGTKTPKS DSCTPTNTTVEVVGSSGQNGDE, corresponding to amino acid residues 225-356 of human M2
Isotype:	IgG
Specificity:	3rd intracellular loop
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	132 amino acid residues identical, dog - 122, orangutan - 130, pig - 122,gorilla -

Product Details

	identical,Chimpanzee, rat - 118, mouse - 117
Characteristics:	Anti-CHRM2 Antibody (ABIN7043062, ABIN7044582 and ABIN7044583) is a highly specific antibody directed against an epitope of the human M2 muscarinic receptor. The antibody can be used in western blot, immunoprecipitation, immunohistochemistry, and immunocytochemistry applications. It has been designed to recognize M2 from mouse, rat, and human samples.
Purification:	The serum was depleted of anti-GST antibodies by affinity chromatography on immobilized GST and then the IgG fraction was purified on immobilized antigen.
Grade:	KO Validated

Target Details

Target:	Muscarinic Acetylcholine Receptor M2 (CHRM2)
Alternative Name:	CHRM2 (CHRM2 Products)
Background:	Muscarinic acetylcholine receptor M2, Cholinergic receptor muscarinic 2, mAChR M2,The action of the neurotransmitter acetylcholine is mediated through two types of receptors, the ionotropic nicotinic receptors and the metabotropic muscarinic receptors. The muscarinic receptors belong to the superfamily of 7-transmembrane G-protein coupled receptors. Five subtypes of muscarinic receptors have been cloned and are named M1-M5.1-2The muscarinic receptors are widely distributed throughout the body but are predominantly expressed in the parasympathetic nervous system and exert both excitatory and inhibitory control over central and peripheral tissues.1-2Muscarinic receptors participate in a number of physiological functions such as regulation of heart rate, muscle contraction, cognition, sensory processing, and motor control.1 They also participate in learning and memory processing.3-4The M2 receptor is considered to be the predominant muscarinic receptor subtype that is expressed in cardiac muscle.5The M2 and M4 receptors mediate Ca2+ channel inhibition and Kir3 K+ channel activation by directly binding the Gβγ subunit to the channel.6,7 Stimulation of the M2 receptor by acetylcholine in the heart results in activation of the Kir3.1/Kir3.4 channels causing a slowing in heart beat.7 Alternative names: M2 Muscarinic Receptor, CHRM2, Muscarinic acetylcholine receptor M2, Cholinergic receptor muscarinic 2, mAChR M2
Gene ID:	1129
NCBI Accession:	NM_000739

Target Details

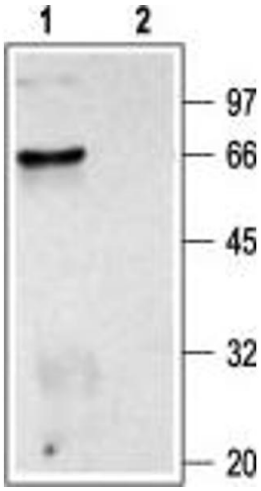
UniProt:	P08172

Application Details

Application Notes:	Antigen preadsorption control: 3 µg fusion protein per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:100 Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: IP|IHC|ICC Negative Control: (ABIN7235118) Blocking Peptide: (ABIN7235118)
Restrictions:	For Research Use only

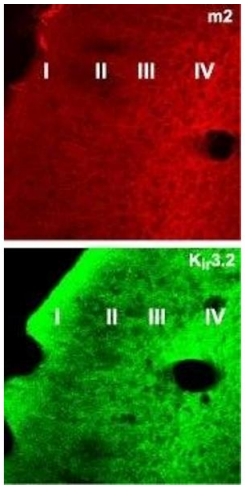
Handling

Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis of rat brain membranes: - 1. Anti-CHRM2 Antibody (ABIN7043062, ABIN7044582 and ABIN7044583), (1:200).2. Anti-CHRM2 Antibody, preincubated with CHRM2 Blocking Peptide (#BLP-MR002).



Immunohistochemistry

Image 2. Expression of Muscarinic acetylcholine receptor M2 in mouse parieto-temporal cortex sections - Immunohistochemical staining of mouse parieto-temporal cortex frozen sections (non-consecutive) using Anti-GIRK2 (Kir3.2) Antibody (ABIN7043488, ABIN7044906 and ABIN7044907), (1:100) and Anti-CHRM2 Antibody (ABIN7043062, ABIN7044582 and ABIN7044583), (1:100). mAChR M2 staining (red) was dense in layer IV, with fibers climbing to layers II-III. Kir3.2 K+ channel staining (green) was dense in layers IV and I. Overlapping expression of Kir3.2 channel and mAChR M2 is seen in cortical layers.