

Anti-CHRNA5 Picoband Antibody

Catalog # ABO10244

Product Information

Application	WB, IHC-P
Primary Accession	P30532
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Neuronal acetylcholine receptor subunit alpha-5(CHRNA5) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1138
Other Names	Neuronal acetylcholine receptor subunit alpha-5, CHRNA5, NACHRA5
Calculated MW	53054
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 µg/ml, Human, Rat
Subcellular Localization	Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein.
Source	Eukaryota
Protein Name	Neuronal acetylcholine receptor subunit alpha-5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ N.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human CHRNA5 (44-76aa AKHEDSLKDLFQDYERWVRPVEHLNDKIKIKF), different from the related mouse sequence by five amino acids, and from the related rat sequence by four amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	CHRNA5 (HGNC:1959)
Synonyms	NACHRA5
Function	Component of neuronal acetylcholine receptors (nAChRs) that function as pentameric, ligand-gated cation channels with high calcium permeability among other activities. nAChRs are excitatory neurotransmitter receptors formed by a collection of nAChR subunits known to mediate synaptic transmission in the nervous system and the neuromuscular junction. Each nAChR subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, cation permeability, and binding to allosteric modulators (PubMed: 20881005 , PubMed: 8663494). Has an accessory rather than functional role and is only able to form functional nAChRs when co-assembled with another beta subunit (PubMed: 20881005 , PubMed: 8663494). Participates in pentameric assemblies along with CHRNA3, CHRNA4, CHRNB2 and CHRNB4 (PubMed: 20881005 , PubMed: 8663494). Increases receptor sensitivity to acetylcholine and nicotine when associated with CHRNA4 and CHRNB2 (PubMed: 8663494). Plays a role in nicotine addiction (PubMed: 20881005).
Cellular Location	Synaptic cell membrane {ECO:0000250 UniProtKB:P32297}; Multi-pass membrane protein. Cell membrane {ECO:0000250 UniProtKB:P32297}; Multi-pass membrane protein

Background

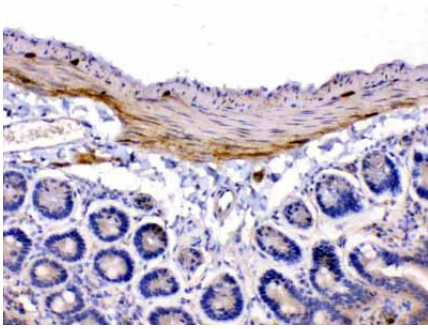
Neuronal acetylcholine receptor subunit alpha-5 is a protein that in humans is encoded by the CHRNA5 gene. It is mapped to 15q25.1. The protein encoded by this gene is a nicotinic acetylcholine receptor subunit and a member of a superfamily of ligand-gated ion channels that mediate fast signal transmission at synapses. These receptors are thought to be heteropentamers composed of separate but similar subunits. Defects in this gene have been linked to susceptibility to lung cancer type 2 (LNCR2).

Images

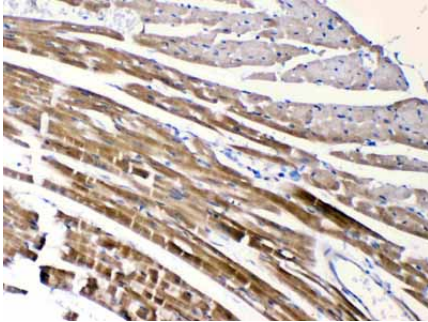


Western blot analysis of CHRNA5 expression in rat skeletal muscle extract (lane 1) and HEPG2 whole cell lysates (lane 2). CHRNA5 at 53KD was detected using rabbit anti- CHRNA5 Antigen Affinity purified polyclonal antibody (Catalog #ABO10244) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .

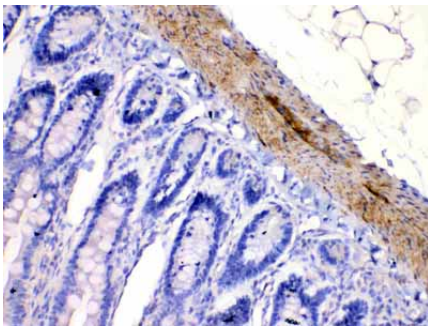
CHRNA5 was detected in paraffin-embedded sections of mouse intestine tissues using rabbit anti- CHRNA5 Antigen Affinity purified polyclonal antibody (Catalog # ABO10244) at 1 μ g/mL. The immunohistochemical



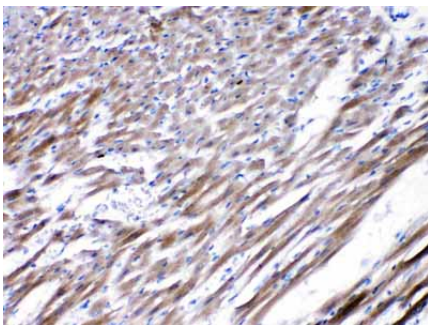
section was developed using SABC method .



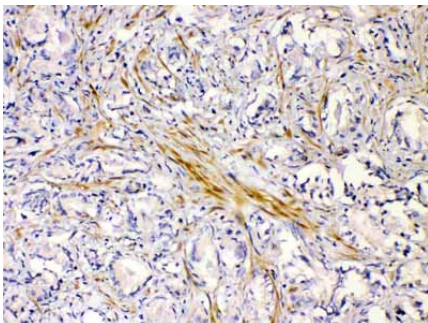
CHRNA5 was detected in paraffin-embedded sections of mouse cardiac muscle tissues using rabbit anti- CHRNA5 Antigen Affinity purified polyclonal antibody (Catalog # ABO10244) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



CHRNA5 was detected in paraffin-embedded sections of rat intestine tissues using rabbit anti- CHRNA5 Antigen Affinity purified polyclonal antibody (Catalog # ABO10244) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



CHRNA5 was detected in paraffin-embedded sections of rat cardiac muscle tissues using rabbit anti- CHRNA5 Antigen Affinity purified polyclonal antibody (Catalog # ABO10244) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



CHRNA5 was detected in paraffin-embedded sections of human prostatic cancer tissues using rabbit anti- CHRNA5 Antigen Affinity purified polyclonal antibody (Catalog # ABO10244) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.