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CHRNB4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20082b

Product Information

Application	WB, E
Primary Accession	P30926
Other Accession	NP_000741.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB42408
Calculated MW	56380
Antigen Region	422-450

Additional Information

Gene ID	1143
Other Names	Neuronal acetylcholine receptor subunit beta-4, CHRNB4
Target/Specificity	This CHRNB4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 422-450 amino acids from the C-terminal region of human CHRNB4.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CHRNB4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CHRNB4 (HGNC:1964)
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 neurotrasnmitter 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:31488329, PubMed:8663494, PubMed:8906617, PubMed:9203638). CHRNB4 forms heteropentameric neuronal acetylcholine receptors with CHRNA2, CHRNA3 and CHRNA4, as well as CHRNA5 and CHRNB3 as accesory subunits (PubMed:11118490, PubMed:20881005, PubMed:8663494). CHRNA3:CHRNB4 being predominant in neurons of the autonomic ganglia, it is known as ganglionic nicotinic receptor (PubMed:31488329). CHRNA3:CHRNB4 or CHRNA3:CHRNA5:CHRNB4 play also an important role in the habenulo- interpeduncular tract, modulating the mesolimbic dopamine system and affecting reward circuits and addiction (By similarity). Hypothalamic CHRNA3:CHRNB4 nAChR activation by nicotine leads to activation of POMC neurons and a decrease in food intake (By similarity).

Cellular Location

Synaptic cell membrane {ECO:0000250|UniProtKB:P04757}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:P04757}; Multi-pass membrane protein

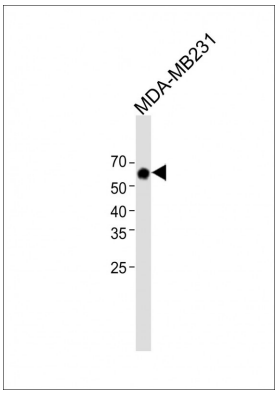
Background

After binding acetylcholine, the AChR responds by an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane.

References

Zhang, H., et al. Neuropsychopharmacology 35(11):2211-2224(2010)
Saccone, N.L., et al. Genes Brain Behav. 9(7):741-750(2010)
Hansen, H.M., et al. Hum. Mol. Genet. 19(18):3652-3661(2010)
Amos, C.I., et al. J. Natl. Cancer Inst. 102(15):1199-1205(2010)
Li, M.D., et al. PLoS ONE 5 (8), E12183 (2010) :

Images



All lanes: Anti-CHRNB4 Antibody (C-term) at 1:1000 dilution + MDA-MB231 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 56 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

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