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CHRNB3 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20832c

Product Information

Application	WB, E
Primary Accession	Q05901
Reactivity	Human, Hamster, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB49738
Calculated MW	52729

Additional Information

Gene ID	1142
Other Names	Neuronal acetylcholine receptor subunit beta-3, CHRNB3
Target/Specificity	This CHRNB3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 187-200 amino acids from the Central region of human CHRNB3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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	CHRNB3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CHRNB3 (HGNC:1963)
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:11118490, PubMed:16835356, PubMed:35889515). Has an accessory rather than functional role and is only able to form functional nAChRs when co-assembled with another beta subunit (PubMed:11118490, PubMed:16835356). Participates in pentameric assemblies along with CHRNA3, CHRNA4, CHRNA6, CHRNB2 and CHRNB4 (PubMed:11118490, PubMed:16835356). Modulates receptor assembly and increases receptor sensitivity to nicotine when associated with CHRNB2, CHRNA4 and/or CHRNA6 as well as CHRNA3 and CHRNB4 (PubMed:11118490, PubMed:16835356). Seems to play a role in nicotine addiction (PubMed:11118490, PubMed:16835356).

Cellular Location

Synaptic cell membrane {ECO:0000250|UniProtKB:O70174}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:O70174}; Multi-pass membrane protein

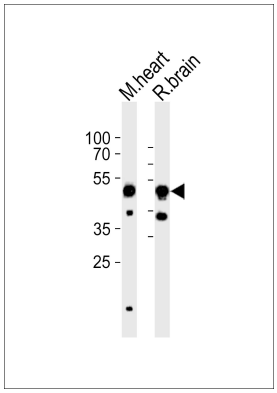
Background

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

Elliott K.J.,et al.J. Mol. Neurosci. 7:217-228(1996).
Groot Kormelink P.J.,et al.FEBS Lett. 400:309-314(1997).
Keddache M.,et al.Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.
Willoughby J.J.,et al.Neurosci. Lett. 155:136-139(1993).

Images



Western blot analysis of lysates from mouse heart, rat brain tissue lysate (from left to right), using CHRNB3 Antibody (Center)(Cat. #AP20832c). AP20832c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.