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CHRNA5 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51089

Product Information

Application	WB
Primary Accession	P30532
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53054

Additional Information

Gene ID	1138
Other Names	Neuronal acetylcholine receptor subunit alpha-5, CHRNA5, NACHRA5
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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 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: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

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

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Elliott K.J.,et al.J. Mol. Neurosci. 7:217-228(1996).
Groot Kormelink P.J.,et al.FEBS Lett. 400:309-314(1997).
Duga S.,et al.Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
Chanock S.J.,et al.Nature 452:537-538(2008).