

CHRNA3 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51088**Specification**

CHRNA3 Antibody - Product Information

Application	WB, E
Primary Accession	P32297
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57 KDa

CHRNA3 Antibody - Additional Information**Gene ID** 1136**Other Names**

Neuronal acetylcholine receptor subunit alpha-3, CHRNA3, NACHRA3

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

CHRNA3 Antibody - Protein Information**Name** CHRNA3 ([HGNC:1957](#))**Synonyms** NACHRA3**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: [31488329](http://www.uniprot.org/citations/31488329), PubMed: [31708116](http://www.uniprot.org/citations/31708116)). CHRNA3 forms heteropentameric neuronal acetylcholine receptors with CHRNB2 and CHRNB4, with CHRNA5, and CHRNB3 as accessory subunits (PubMed: [20881005](http://www.uniprot.org/citations/20881005), PubMed: [8663494](http://www.uniprot.org/citations/8663494)). CHRNA3:CHRNB4 being predominant in neurons of the autonomic ganglia, it is known as ganglionic nicotinic receptor (PubMed: [31488329](http://www.uniprot.org/citations/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:CHRNA4 nAChR activation by nicotine leads to activation of POMC neurons and a decrease in food intake (By similarity). Also expressed in the urothelium where it modulates reflex bladder activity by increasing intracellular calcium through extracellular influx and basal ATP release (By similarity).

Cellular Location

Synaptic cell membrane {ECO:0000250|UniProtKB:P04757}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum {ECO:0000250|UniProtKB:P04757}. Golgi apparatus {ECO:0000250|UniProtKB:P04757}. Note=Interaction with UBXL2A/UBXL4 promotes translocation to the plasma membrane {ECO:0000250|UniProtKB:P04757}

CHRNA3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CHRNA3 Antibody - Images

CHRNA3 Antibody - 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.

CHRNA3 Antibody - References

Fornasari D., et al. *Neurosci. Lett.* 111:351-356(1990).
Mihovilovic M., et al. *Exp. Neurol.* 111:175-180(1991).
Elliott K.J., et al. *J. Mol. Neurosci.* 7:217-228(1996).
Groot Kormelink P.J., et al. *FEBS Lett.* 400:309-314(1997).
Rempel N., et al. *Hum. Genet.* 103:645-653(1998).