

CHRNA10 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12186c

Specification

CHRNA10 Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	O9GZZ6
Other Accession	O9JLB5 , NP_065135.2
Reactivity	Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	49705
Antigen Region	179-206

CHRNA10 Antibody (Center) - Additional Information

Gene ID 57053

Other Names

Neuronal acetylcholine receptor subunit alpha-10, Nicotinic acetylcholine receptor subunit alpha-10, NACHR alpha-10, CHRNA10, NACHRA10

Target/Specificity

This CHRNA10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 179-206 amino acids from the Central region of human CHRNA10.

Dilution

WB~~1:1000

IHC-P~~1:10~50

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

CHRNA10 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CHRNA10 Antibody (Center) - Protein Information

Name CHRNA10 ([HGNC:13800](#))

Synonyms NACHRA10

Function Component of neuronal acetylcholine receptors (nAChRs) that function as pentameric, ligand-gated cation channels with high calcium permeability. nAChRs are excitatory neurotransmitter receptors formed by a collection of nAChR subunits. Each nAChR subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, cation permeability, and binding to allosteric modulators (Probable). Forms heteropentamers with CHRNA9. Expressed in the inner ear, in sympathetic neurons and in other non-neuronal cells, such as skin keratinocytes and lymphocytes (PubMed:[11752216](#), PubMed:[15531379](#)). nAChR formed by CHRNA9:CHRNA10 is involved in modulation of auditory stimuli. The channel is permeable to a range of divalent cations including calcium, the influx of which may activate a potassium current which hyperpolarizes the cell membrane. In the ear, mediates synaptic transmission between efferent olivocochlear fibers and hair cells of the cochlea, this may lead to a reduction in basilar membrane motion, altering the activity of auditory nerve fibers and reducing the range of dynamic hearing (PubMed:[11752216](#)). This may protect against acoustic trauma. May also regulate keratinocyte adhesion (By similarity).

Cellular Location

Synaptic cell membrane {ECO:0000250|UniProtKB:Q9JLB5}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:Q9JLB5}; Multi-pass membrane protein

Tissue Location

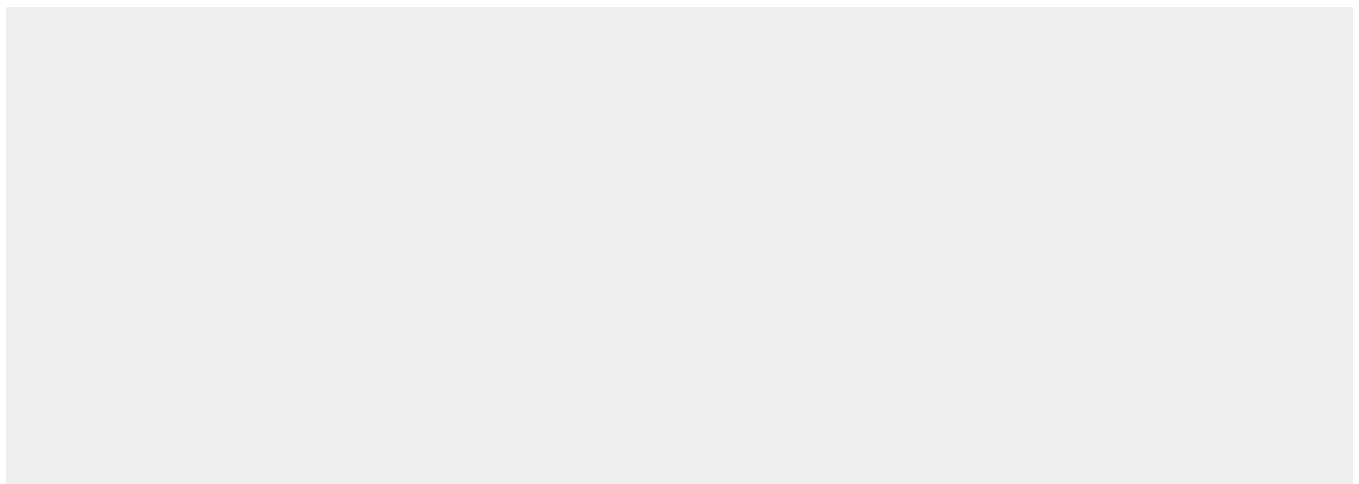
Expressed in inner-ear tissue, tonsil, immortalized B-cells, cultured T-cells and peripheral blood lymphocytes

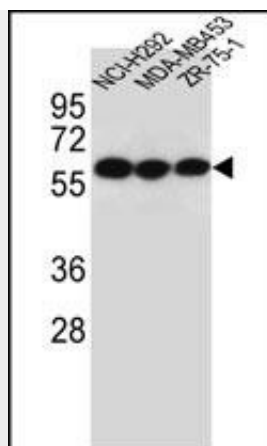
CHRNA10 Antibody (Center) - Protocols

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

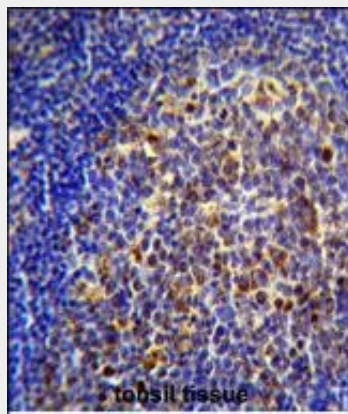
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CHRNA10 Antibody (Center) - Images





CHRNA10 Antibody (Center) (Cat. #AP12186c) western blot analysis in NCI-H292,MDA-MB453,ZR-75-1 cell line lysates (35ug/lane).This demonstrates the CHRNA10 antibody detected the CHRNA10 protein (arrow).



CHRNA10 Antibody (Center) (Cat. #AP12186c)immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CHRNA10 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

CHRNA10 Antibody (Center) - Background

CHRNA10 is an ionotropic receptor with a probable role in the modulation of auditory stimuli. Agonist binding may induce an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane. The channel is permeable to a range of divalent cations including calcium, the influx of which may activate a potassium current which hyperpolarizes the cell membrane. In the ear, this may lead to a reduction in basilar membrane motion, altering the activity of auditory nerve fibers and reducing the range of dynamic hearing. This may protect against acoustic trauma.

CHRNA10 Antibody (Center) - References

- Saccone, N.L., et al. Genes Brain Behav. 9(7):741-750(2010)
- Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
- Rigbi, A., et al. Pharmacogenomics J. (2010) In press :
- Need, A.C., et al. Eur. J. Hum. Genet. 17(7):946-957(2009)
- Saccone, N.L., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (4), 453-466 (2009) :