

# CHRNA10

Purified Mouse Monoclonal Antibody

Catalog # AO2620a

## Product Information

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<b>Application</b>	WB, IHC, ICC, E
<b>Primary Accession</b>	<a href="#">Q9GZZ6</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	4E2D1
<b>Isotype</b>	Mouse IgG2a
<b>Calculated MW</b>	49705
<b>Immunogen</b>	Purified recombinant fragment of human CHRNA10 (AA: extra 25-237) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	57053
<b>Other Names</b>	Neuronal acetylcholine receptor subunit alpha-10, Nicotinic acetylcholine receptor subunit alpha-10, NACHR alpha-10, CHRNA10, NACHRA10
<b>Dilution</b>	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	CHRNA10 is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CHRNA10 ( <a href="#">HGNC:13800</a> )
<b>Synonyms</b>	NACHRA10
<b>Function</b>	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

## References

1.J Neurochem. 2012 Sep;122(6):1137-44.2.Genes Brain Behav. 2010 Oct;9(7):741-50.

## Images

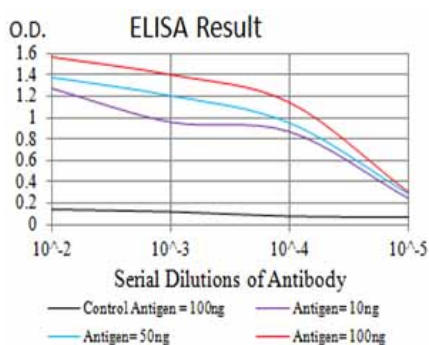


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

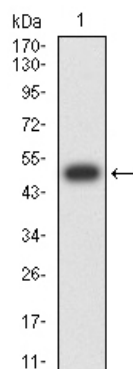


Figure 2:Western blot analysis using CHRNA10 mAb against human CHRNA10 (AA: extra 25-237) recombinant protein. (Expected MW is 50 kDa)

Figure 3:Western blot analysis using CHRNA10 mAb against HEK293 (1) and CHRNA10 (AA: extra 25-237)-hIgGFc transfected HEK293 (2) cell lysate.

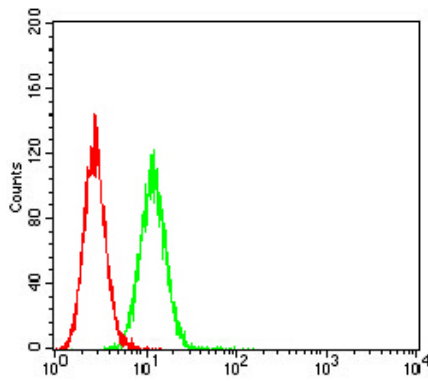
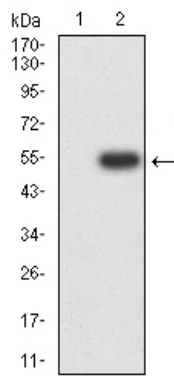


Figure 4:Flow cytometric analysis of Hela cells using CHRNA10 mouse mAb (green) and negative control (red).

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