

Anti-CHRNA10 Antibody

Catalog # AP59856

Product Information

Application	WB, IF/IC
Primary Accession	Q9GZZ6
Reactivity	Human, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49705

Additional Information

Gene ID	57053
Other Names	NACHRA10; Neuronal acetylcholine receptor subunit alpha-10; Nicotinic acetylcholine receptor subunit alpha-10; NACHR alpha-10
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human CHRNA10. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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).

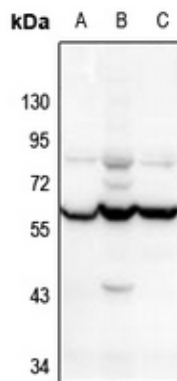
Cellular Location

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

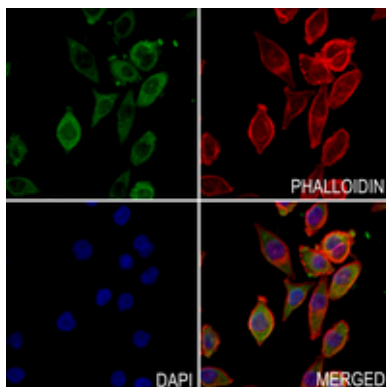
Tissue Location

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

Images



Western blot analysis of CHRNA10 expression in Jurkat (A), K562 (B), THP1 (C) whole cell lysates. (Predicted band size: 49 kDa; Observed band size: 60 kDa)



Immunofluorescent analysis of CHRNA10 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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