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# AChRα9 Polyclonal Antibody

Catalog # AP73921

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q9UGM1 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 54807 |

## Additional Information

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| **Gene ID** | 55584 |
| **Other Names** | Neuronal acetylcholine receptor subunit alpha-9 (Nicotinic acetylcholine receptor subunit alpha-9) (NACHR alpha-9) |
| **Dilution** | WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A |
| **Format** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| **Storage Conditions** | -20℃ |

## Protein Information

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| **Name** | CHRNA9 ( HGNC:14079) |
| **Synonyms** | NACHRA9 |
| **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:11752216, PubMed:18723036, PubMed:25282151). Forms either homopentamers or heteropentamers with CHRNA10. Expressed in the inner ear, in sympathetic neurons and in other non-neuronal cells, such as skin keratinocytes and lymphocytes (PubMed:11752216, PubMed:18723036). nAChR formed by CHRNA9:CHRNA10 mediate central nervous system control of auditory and vestibular sensory processing. The channel is permeable to a range of divalent cations including calcium, the influx of which may activate a |

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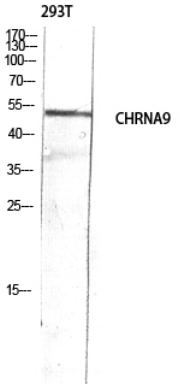
| | potassium current which hyperpolarizes the cell membrane (PubMed:11752216, PubMed:25282151). In the ear, mediates synaptic transmission between efferent olivocochlear fibers and hair cells of the cochlea, this may lead to a reduction in basilar membrane motion, altering the activity of auditory nerve fibers and reducing the range of dynamic hearing. This may protect against acoustic trauma (By similarity). May also regulate keratinocyte adhesion (PubMed:11021840, PubMed:11752216, PubMed:25282151). |
| **Cellular Location** | Synaptic cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein |
| **Tissue Location** | Expressed in cochlea, keratinocytes, pituitary gland, B-cells and T-cells. |

## Background

Ionotropic receptor with a probable role in the modulation of auditory stimuli. Agonist binding induces a conformation change that leads to the opening of an ion-conducting channel across the plasma membrane (PubMed:11752216, PubMed:25282151). 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 (PubMed:11752216, PubMed:25282151). 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. May also regulate keratinocyte adhesion (PubMed:11021840).

## Images




Western blot analysis of 293T lysis using CHRNA9 antibody. Antibody was diluted at 1:500. Secondary antibody was diluted at 1:20000