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CHRNA9 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI16203

Product Information

Application	WB
Primary Accession	Q9UGM1
Other Accession	NM_017581, NP_060051
Reactivity	Mouse, Rabbit, Dog, Guinea Pig, Horse, Bovine
Predicted	Mouse, Rabbit, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54807

Additional Information

Gene ID	55584
Alias Symbol	NACHRA9, HSA243342
Other Names	Neuronal acetylcholine receptor subunit alpha-9, Nicotinic acetylcholine receptor subunit alpha-9, NACHR alpha-9, CHRNA9, NACHRA9
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-CHRNA9 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	CHRNA9 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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 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.

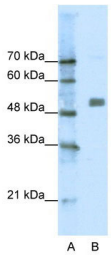
Background

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).

References

Sgard F.,et al.Mol. Pharmacol. 61:150-159(2002).
Lustig L.R.,et al.Cytogenet. Genome Res. 98:154-159(2002).
Hillier L.W.,et al.Nature 434:724-731(2005).
Nguyen V.T.,et al.Am. J. Pathol. 157:1377-1391(2000).
Peng H.,et al.Life Sci. 76:263-280(2004).

Images



WB Suggested Anti-CHRNA9 Antibody Titration: 0.0625µg/ml
ELISA Titer: 1:312500
Positive Control: Jurkat cell lysate

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