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CHRNA4 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10768

Product Information

Application	WB
Primary Accession	P43681
Other Accession	NM_000744, NP_000735
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Zebrafish, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	69957

Additional Information

Gene ID	1137
Alias Symbol	BFNC, EBN, EBN1, NACRA4, NACHR, NACHRA4
Other Names	Neuronal acetylcholine receptor subunit alpha-4, CHRNA4, NACRA4
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-CHRNA4 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	CHRNA4 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

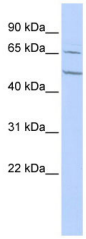
Name	CHRNA4 (HGNC:1958)
Synonyms	NACRA4
Function	Component of neuronal acetylcholine receptors (nAChRs) that function as pentameric, ligand-gated cation channels with high calcium permeability among other activities. nAChRs are excitatory neurotrasnmitter receptors formed by a collection of nAChR subunits 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:22361591, PubMed:27698419, PubMed:29720657, PubMed:38454578). CHRNA4 forms

	heteropentameric neuronal acetylcholine receptors with CHRNB2 and CHRNB4, as well as CHRNA5 and CHRNB3 as accesory subunits. Is the most abundant nAChR subtype expressed in the central nervous system (PubMed:16835356, PubMed:22361591, PubMed:27698419, PubMed:29720657, PubMed:38454578). Found in two major stoichiometric forms,(CHRNA4)3:(CHRNB2)2 and (CHRNA4)2:(CHRNB2)3, the two stoichiometric forms differ in their unitary conductance, calcium permeability, ACh sensitivity and potentiation by divalent cation (PubMed:27698419, PubMed:29720657, PubMed:38454578). Involved in the modulation of calcium-dependent signaling pathways, influences the release of neurotransmitters, including dopamine, glutamate and GABA (By similarity).
Cellular Location	Synaptic cell membrane {ECO:0000250|UniProtKB:O70174}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:O70174}; Multi-pass membrane protein

References

Fedi,M., (2008) J. Clin. Endocrinol. Metab. 93 (2), 634-637 Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.Publications:Ishizuka, T., Ozawa, A., Goshima, H. & Watanabe, Y. Involvement of nicotinic acetylcholine receptor in the proliferation of mouse induced pluripotent stem cells. Life Sci. 90, 637-48 (2012). WB, Mouse, Guinea pig, Human, Rat, Dog, Zebrafish, Bovine, H, Rabbit22483693

Images



WB Suggested Anti-CHRNA4 Antibody Titration: 0.2-1 µg/ml
Positive Control: HepG2 cell lysate