

**CHRNA4 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20082b**

**Specification**

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**CHRNA4 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P30926</a>
Other Accession	<a href="#">NP_000741.1</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	422-450

**CHRNA4 Antibody (C-term) - Additional Information**

**Gene ID** 1143

**Other Names**

Neuronal acetylcholine receptor subunit beta-4, CHRNA4

**Target/Specificity**

This CHRNA4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 422-450 amino acids from the C-terminal region of human CHRNA4.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CHRNA4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**CHRNA4 Antibody (C-term) - Protein Information**

**Name** CHRNA4 ([HGNC:1964](#))

**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 neurotransmitter 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:[20881005](#), PubMed:[31488329](#), PubMed:[8663494](#), PubMed:[8906617](#), PubMed:[9203638](#)). CHRNB4 forms heteropentameric neuronal acetylcholine receptors with CHRNA2, CHRNA3 and CHRNA4, as well as CHRNA5 and CHRNB3 as accessory subunits (PubMed:[11118490](#), PubMed:[20881005](#), PubMed:[8663494](#)). CHRNA3:CHRNB4 being predominant in neurons of the autonomic ganglia, it is known as ganglionic nicotinic receptor (PubMed:[31488329](#)). CHRNA3:CHRNB4 or CHRNA3:CHRNA5:CHRNB4 play also an important role in the habenulo-interpeduncular tract, modulating the mesolimbic dopamine system and affecting reward circuits and addiction (By similarity). Hypothalamic CHRNA3:CHRNB4 nAChR activation by nicotine leads to activation of POMC neurons and a decrease in food intake (By similarity).

### Cellular Location

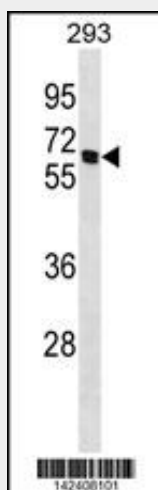
Synaptic cell membrane {ECO:0000250|UniProtKB:P04757}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:P04757}; Multi-pass membrane protein

### CHRNB4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CHRNB4 Antibody (C-term) - Images



CHRNB4 Antibody (C-term) (Cat. #AP20082b) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the CHRNB4 antibody detected the CHRNB4 protein (arrow).

### CHRNB4 Antibody (C-term) - Background

After binding acetylcholine, the AChR responds by an extensive change in conformation that

affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane.

#### **CHRNA4 Antibody (C-term) - References**

Zhang, H., et al. Neuropsychopharmacology 35(11):2211-2224(2010)  
Saccone, N.L., et al. Genes Brain Behav. 9(7):741-750(2010)  
Hansen, H.M., et al. Hum. Mol. Genet. 19(18):3652-3661(2010)  
Amos, C.I., et al. J. Natl. Cancer Inst. 102(15):1199-1205(2010)  
Li, M.D., et al. PLoS ONE 5 (8), E12183 (2010) :