

**CHRNA2 Antibody (N-Term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21759a**

**Specification**

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**CHRNA2 Antibody (N-Term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P17787</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	57019

**CHRNA2 Antibody (N-Term) - Additional Information**

**Gene ID** 1141

**Other Names**

Neuronal acetylcholine receptor subunit beta-2, CHRNA2

**Target/Specificity**

This CHRNA2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 66-100 amino acids from human CHRNA2.

**Dilution**

WB~~1:2000

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**

CHRNA2 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

**CHRNA2 Antibody (N-Term) - Protein Information**

**Name** CHRNA2 ([HGNC:1962](#))

**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:[22361591](#), PubMed:[27698419](#), PubMed:[29720657](#), PubMed:[38454578](#)). CHRNB2 forms heteropentameric neuronal acetylcholine receptors with CHRNA2, CHRNA3, CHRNA4 and CHRNA6, as well as CHRNA5 and CHRNB3 as accessory subunits (PubMed:[16835356](#), PubMed:[20881005](#), PubMed:[22361591](#), PubMed:[27698419](#), PubMed:[29720657](#), PubMed:[38454578](#), PubMed:[8663494](#)). Found in two major stoichiometric forms, (CHRNA4)<sub>3</sub>:(CHRNB2)<sub>2</sub> and (CHRNA4)<sub>2</sub>:(CHRNB2)<sub>3</sub>, the two stoichiometric forms differ in their unitary conductance, calcium permeability, ACh sensitivity and potentiation by divalent cation (PubMed:[27698419](#), PubMed:[29720657](#), PubMed:[38454578](#)). Heteropentameric channels with CHRNA6 and CHRNA4 exhibit high sensitivity to ACh and nicotine and are predominantly expressed in only a few brain areas, including dopaminergic neurons, norepinephrine neurons and cells of the visual system. nAChRs containing CHRNA6 subunits mediate endogenous cholinergic modulation of dopamine and gamma-aminobutyric acid (GABA) release in response to nicotine at nerve terminals (By similarity). Also forms functional nAChRs with other subunits such as CHRNA7:CHRNB2, mainly expressed in basal forebrain cholinergic neurons (PubMed:[33239400](#), PubMed:[38161283](#)).

### Cellular Location

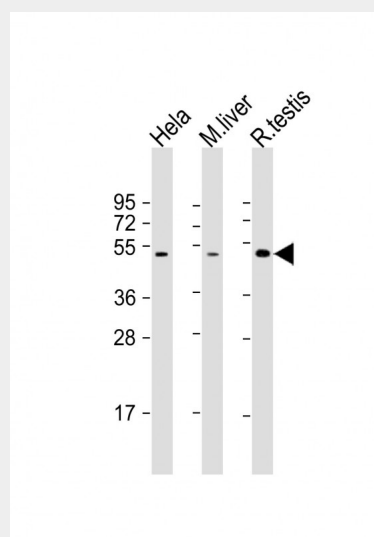
Synaptic cell membrane {ECO:0000250|UniProtKB:P12390}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein

### CHRNB2 Antibody (N-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](#)

### CHRNB2 Antibody (N-Term) - Images



All lanes : Anti-CHRNA2 Antibody (N-Term) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: mouse liver lysate Lane 3: rat testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFD/MTBST.

### **CHRNA2 Antibody (N-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 permeable to sodium ions.

### **CHRNA2 Antibody (N-Term) - References**

Anand R., et al. *Nucleic Acids Res.* 18:4272-4272(1990).  
Elliott K.J., et al. *J. Mol. Neurosci.* 7:217-228(1996).  
Groot Kormelink P.J., et al. *FEBS Lett.* 400:309-314(1997).  
Rempel N., et al. *Hum. Genet.* 103:645-653(1998).  
Lueders K.K., et al. *Mamm. Genome* 10:900-905(1999).