

# ACHA4 Antibody

Rabbit mAb

Catalog # AP92399

## Product Information

<b>Application</b>	WB, IP
<b>Primary Accession</b>	<a href="#">P43681</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	Neuronal acetylcholine receptor subunit alpha-4; ACH4; AChR; Acra4; BFNC; CHRNA4; EBN; EBN1; NACHR; NACRA4;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	69957

## Additional Information

<b>Dilution</b>	WB 1:1000~1:5000 IP 1:50
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human ACHA4
<b>Description</b>	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.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

<b>Name</b>	CHRNA4 ( <a href="#">HGNC:1958</a> )
<b>Synonyms</b>	NACRA4
<b>Function</b>	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: <a href="#">22361591</a> , PubMed: <a href="#">27698419</a> , PubMed: <a href="#">29720657</a> , PubMed: <a href="#">38454578</a> ). CHRNA4 forms heteropentameric neuronal acetylcholine receptors with CHRNA2 and CHRNA4, as well as CHRNB3 and CHRNB4 as accessory subunits. Is the most abundant nAChR subtype expressed in the central nervous system (PubMed: <a href="#">16835356</a> , PubMed: <a href="#">22361591</a> , PubMed: <a href="#">27698419</a> ,

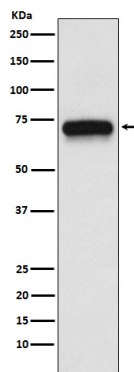
PubMed:[29720657](#), PubMed:[38454578](#)). Found in two major stoichiometric forms, (CHRNA4)<sub>3</sub>:(CHRNA4)<sub>2</sub> and (CHRNA4)<sub>2</sub>:(CHRNA4)<sub>3</sub>, the two stoichiometric forms differ in their unitary conductance, calcium permeability, ACh sensitivity and potentiation by divalent cation (PubMed:[27698419](#), PubMed:[29720657](#), PubMed:[38454578](#)). 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

### Images

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Western blot analysis of ACHA4 expression in SH-SY5Y cell lysate.

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