



Rabbit Anti-Rat Nicotinic Acetylcholine Receptor $\alpha 7$ (CHRNA7) (extracellular) polyclonal antibody (CABT-L687AE)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	This polyclonal antibody is a highly specific antibody directed against an epitope of the rat protein. The antibody can be used in western blot, immunohistochemistry, immunocytochemistry, live cell imaging, and indirect flow cytometry applications. It has been designed to recognize nAChR $\alpha 7$ from mouse, rat, and human samples.
Immunogen	Peptide (C)KELVKNYNPLER, corresponding to amino acid residues 31-42 of rat nAChR $\alpha 7$. Extracellular, N-terminus.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purification	Affinity purified on immobilized antigen.
Conjugate	Unconjugated
Applications	ICC, IFC, IHC, LCI, WB, IP
Reconstitution	Reconstituted antibody contains phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Format	Lyophilized
Size	200 μ l
Preservative	0.05% sodium azide

Storage	Short Term: 2-8°C. Long Term: -20°C. Avoid repeated freezing and thawing.
Ship	Wet ice

BACKGROUND

Introduction	<p>The nicotinic acetylcholine receptors (nAChRs) are members of a superfamily of ligand-gated ion channels that mediate fast signal transmission at synapses. The nAChRs are thought to be hetero-pentamers composed of homologous subunits. The proposed structure for each subunit is a conserved N-terminal extracellular domain followed by three conserved transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region. The protein encoded by this gene forms a homo-oligomeric channel, displays marked permeability to calcium ions and is a major component of brain nicotinic receptors that are blocked by, and highly sensitive to, alpha-bungarotoxin. Once this receptor binds acetylcholine, it undergoes an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane. This gene is located in a region identified as a major susceptibility locus for juvenile myoclonic epilepsy and a chromosomal location involved in the genetic transmission of schizophrenia. An evolutionarily recent partial duplication event in this region results in a hybrid containing sequence from this gene and a novel FAM7A gene. Alternative splicing results in multiple transcript variants.</p>
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Keywords	<p>CHRNA7;cholinergic receptor, nicotinic, alpha 7 (neuronal);NACHRA7;CHRNA7-2;neuronal acetylcholine receptor subunit alpha-7;a7 nicotinic acetylcholine receptor;alpha-7 nicotinic cholinergic receptor subunit;alpha 7 neuronal nicotinic acetylcholine receptor;cholinergic receptor, nicotinic, alpha polypeptide 7;neuronal acetylcholine receptor protein, alpha-7 chain</p>
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GENE INFORMATION

Official Symbol	cholinergic receptor, nicotinic, alpha 7 (neuronal)
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