

## Product datasheet for **TA348983**

### Nicotinic Acetylcholine Receptor alpha 7 (CHRNA7) Goat Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Recommended Dilution:	IHC: 5-10 ug/ml
Reactivity:	Rat (Expected from sequence similarity: Human, Mouse, Dog, Cow)
Host:	Goat
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for Anti-CHRNA7 Antibody: Peptide with sequence KRPGEDKVRPACQHKQ, from the internal region of the protein sequence according to NP_000737.1.
Formulation:	Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
Concentration:	lot specific
Purification:	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cholinergic receptor nicotinic alpha 7 subunit
Database Link:	<a href="#">NP_000737</a> <a href="#">Entrez Gene 11441 Mouse</a> <a href="#">Entrez Gene 25302 Rat</a> <a href="#">Entrez Gene 488696 Dog</a> <a href="#">Entrez Gene 1139 Human</a> <a href="#">P36544</a>



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<b>Background:</b>	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. [provided by RefSeq, Feb 2012]
<b>Synonyms:</b>	CHRNA7-2; NACHRA7
<b>Note:</b>	This antibody also reacts with CHRNA7-FAM7A fusion isoform 1 (NP_647536.1) and isoform 2 (NP_683709.1).
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway