

Product datasheet for **TA355841**

Nicotinic Acetylcholine Receptor alpha 7 (CHRNA7) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The immunogen is a synthetic peptide directed towards the C-terminal region of human CHRNA7
Specificity:	Expected reactivity: Cow, Dog, Guinea Pig, Horse, Human, Mouse, Rabbit, Rat Homology: Cow: 93%; Dog: 93%; Guinea Pig: 93%; Horse: 93%; Human: 100%; Mouse: 77%; Rabbit: 93%; Rat: 86%
Formulation:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. <i>Note that this product is shipped as lyophilized powder to China customers.</i>
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	55kDa
Gene Name:	cholinergic receptor nicotinic alpha 7 subunit
Database Link:	NP_000737.1 Entrez Gene 1139 Human P36544



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Background:

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.

Synonyms:

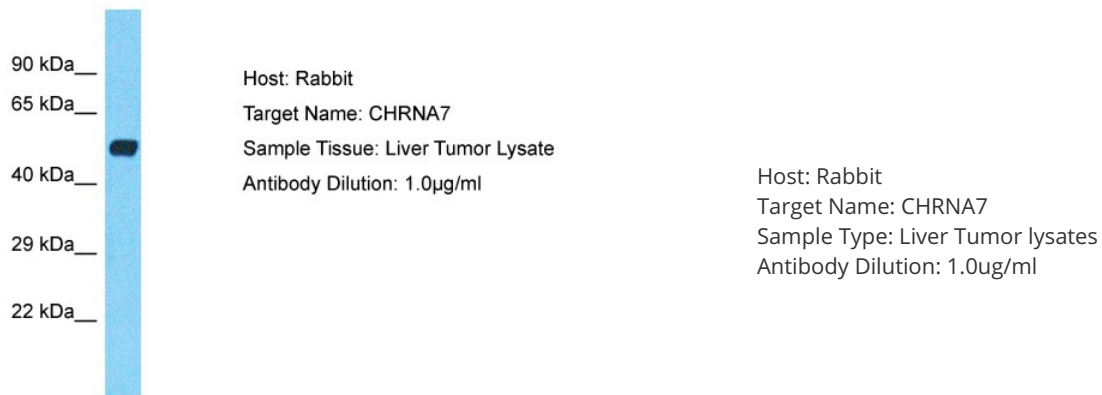
CHRNA7-2; NACHRA7

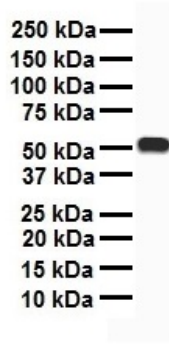
Protein Families:

Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane

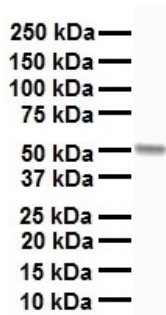
Protein Pathways:

Calcium signaling pathway

Product images:



WB Suggested Anti-CHRNA7 antibody Titration: 1 ug/mL
Sample Type: Human heart



WB Suggested Anti-CHRNA7 antibody Titration: 1 ug/mL
Sample Type: Human liver