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Product datasheet for RC221382L1V

Nicotinic Acetylcholine Receptor alpha 7 (CHRNA7) (NM_000746) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Nicotinic Acetylcholine Receptor alpha 7 (CHRNA7) (NM_000746) Human Tagged ORF Clone Lentiviral Particle
Symbol:	CHRNA7
Synonyms:	CHRNA7-2; NACHRA7
Mammalian Cell Selection:	None
Vector:	pLenti-C-Myc-DDK (PS100064)
Tag:	Myc-DDK
ACCN:	NM_000746
ORF Size:	1506 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC221382).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_000746.2
RefSeq Size:	2155 bp
RefSeq ORF:	1509 bp
Locus ID:	1139
UniProt ID:	P36544
Cytogenetics:	15q13.3
Protein Families:	Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane

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Protein Pathways: Calcium signaling pathway

MW: 56.3 kDa

Gene Summary: 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]