

Recombinant Human CHRNA2

Cat. No. CHRNA2-30387TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of Human Nicotinic Acetylcholine Receptor alpha 2 with N-terminal proprietary tag. Predicted MW 37.73kDa.
Species	Human
Source	Wheat Germ
ProteinLength	110 amino acids
Description	Nicotinic acetylcholine receptors (nAChRs) are ligand-gated ion channels formed by a pentameric arrangement of alpha and beta subunits to create distinct muscle and neuronal receptors. Neuronal receptors are found throughout the peripheral and central nervous system where they are involved in fast synaptic transmission. This gene encodes an alpha subunit that is widely expressed in the brain. The proposed structure for nAChR subunits 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. Mutations in this gene cause autosomal dominant nocturnal frontal lobe epilepsy type 4. Single nucleotide polymorphisms (SNPs) in this gene have been associated with nicotine dependence.
Molecular Weight	37.730kDa inclusive of tags
Form	Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	EEAKRPPPRAPGDPLSSPSPTALPQGGSHTEEDRLFHL FRGYNRWARPVNPTS DVVIVRFGLSIAQLIDVDEKNQMMT TNVWLKQEWSDYKLRWNPADFGNITSLRVP
Sequence Similarities	Belongs to the ligand-gated ion channel (TC 1.A.9) family. Acetylcholine receptor (TC 1.A.9.1) subfamily. Alpha-2/CHRNA2 sub-subfamily.

GENE INFORMATION

Gene Name	CHRNA2 cholinergic receptor, nicotinic, alpha 2 (neuronal) [Homo sapiens]
Official Symbol	CHRNA2
Synonyms	CHRNA2; cholinergic receptor, nicotinic, alpha 2 (neuronal); cholinergic receptor, nicotinic, alpha polypeptide 2 (neuronal); neuronal acetylcholine receptor subunit alpha-2;
Gene ID	1135
mRNA Refseq	NM_000742
Protein Refseq	NP_000733
MIM	118502

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Uniprot ID	Q15822
Chromosome Location	8p21
Pathway	Acetylcholine Binding And Downstream Events, organism-specific biosystem; Activation of Nicotinic Acetylcholine Receptors, organism-specific biosystem; Highly calcium permeable nicotinic acetylcholine receptors, organism-specific biosystem; Highly calcium permeable postsynaptic nicotinic acetylcholine receptors, organism-specific biosystem; Neuroactive ligand-receptor interaction, organism-specific biosystem;
Function	acetylcholine receptor activity; acetylcholine-activated cation-selective channel activity; extracellular ligand-gated ion channel activity; ion channel activity; receptor activity;



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