

Recombinant Human CHRNA4, GST-tagged

Cat. No. CHRNA4-11212H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human CHRNA4 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.

Species Human

Source E.coli

ProteinLength 334-573a.a.

Description This gene encodes a nicotinic acetylcholine receptor, which belongs to a superfamily of ligand-gated ion channels that play a role in fast signal transmission at synapses. These pentameric receptors can bind acetylcholine, which causes an extensive change in conformation that leads to the opening of an ion-conducting channel across the plasma membrane. This protein is an integral membrane receptor subunit that can interact with either nAChR beta-2 or nAChR beta-4 to form a functional receptor. Mutations in this gene cause nocturnal frontal lobe epilepsy type 1. Polymorphisms in this gene that provide protection against nicotine addiction have been described. Alternative splicing results in multiple transcript variants.

Storage The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

Storage Buffer 1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

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GENE INFORMATION

Gene Name	CHRNA4 cholinergic receptor, nicotinic, alpha 4 (neuronal) [Homo sapiens]
Official Symbol	CHRNA4
Synonyms	CHRNA4; cholinergic receptor, nicotinic, alpha 4 (neuronal); cholinergic receptor, nicotinic, alpha polypeptide 4 , EBN, EBN1; neuronal acetylcholine receptor subunit alpha-4; acetylcholine receptor; nicotinic; alpha 4 (neuronal); BFNC; cholinergic receptor, nicotinic, alpha polypeptide 4; neuronal nicotinic acetylcholine receptor alpha-4 subunit; EBN; EBN1; NACHR; NACRA4; NACHRA4; FLJ95812;
Gene ID	1137
mRNA Refseq	NM_000744
Protein Refseq	NP_000735
MIM	118504
UniProt ID	P43681
Chromosome Location	20
Pathway	Acetylcholine Binding And Downstream Events, organism-specific biosystem; Activation of Nicotinic Acetylcholine Receptors, organism-specific biosystem; Cholinergic synapse, organism-specific biosystem; Highly calcium permeable nicotinic acetylcholine receptors, organism-specific biosystem; Highly calcium permeable postsynaptic nicotinic acetylcholine receptors, organism-specific biosystem; Highly sodium permeable acetylcholine nicotinic receptors, organism-specific biosystem;

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Neuroactive ligand-receptor interaction, organism-specific biosystem;

Function

acetylcholine binding; acetylcholine receptor activity; acetylcholine-activated cation-selective channel activity; acetylcholine-activated cation-selective channel activity; extracellular ligand-gated ion channel activity; ion channel activity; ligand-gat

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