

CHRNA4 Blocking Peptide (C-Term)

Synthetic peptide

Catalog # BP21811b

Specification

CHRNA4 Blocking Peptide (C-Term) - Product InformationPrimary Accession [P43681](#)**CHRNA4 Blocking Peptide (C-Term) - Additional Information**

Gene ID 1137

Other Names

Neuronal acetylcholine receptor subunit alpha-4, CHRNA4, NACRA4

Target/Specificity

The synthetic peptide sequence is selected from aa 492-503 of HUMAN CHRNA4

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CHRNA4 Blocking Peptide (C-Term) - Protein InformationName CHRNA4 ([HGNC:1958](#))

Synonyms NACRA4

Function

Component of neuronal acetylcholine receptors (nAChRs) that function as pentameric, ligand-gated cation channels with high calcium permeability among other activities. nAChRs are excitatory neurotransmitter receptors formed by a collection of nAChR subunits known to mediate synaptic transmission in the nervous system and the neuromuscular junction. Each nAChR subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, cation permeability, and binding to allosteric modulators (PubMed:22361591, PubMed:27698419, PubMed:29720657, PubMed:38454578). CHRNA4 forms heteropentameric neuronal acetylcholine receptors with CHRNB2 and CHRNB4, as well as CHRNA5 and CHRNB3 as accessory subunits. Is the most abundant nAChR subtype expressed in the central nervous system (PubMed:16835356, PubMed:22361591, PubMed:27698419, PubMed:29720657, PubMed:38454578). Found in two major stoichiometric forms,(CHRNA4)3:(CHRNA2)2 and (CHRNA4)2:(CHRNA2)3, the two stoichiometric forms differ in their unitary conductance, calcium permeability, ACh sensitivity and potentiation by divalent cation (PubMed:27698419, PubMed:29720657, PubMed:38454578). Involved in the modulation of calcium-dependent signaling pathways, influences the release of neurotransmitters, including dopamine, glutamate and GABA (By similarity).

Cellular Location

Synaptic cell membrane {ECO:0000250|UniProtKB:O70174}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:O70174}; Multi-pass membrane protein

CHRNA4 Blocking Peptide (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CHRNA4 Blocking Peptide (C-Term) - Images

CHRNA4 Blocking Peptide (C-Term) - Background

After binding acetylcholine, the AChR responds by an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane permeable to sodium ions.

CHRNA4 Blocking Peptide (C-Term) - References

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Steinlein O.K.,et al.Genomics 32:289-294(1996).
Elliott K.J.,et al.J. Mol. Neurosci. 7:217-228(1996).
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Deloukas P.,et al.Nature 414:865-871(2001).