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CHRNA3 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP5022a

Specification

CHRNA3 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P32297

CHRNA3 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 1136

Other Names
Neuronal acetylcholine receptor subunit alpha-3, CHRNA3, NACHRA3

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.

CHRNA3 Antibody (N-term) Blocking Peptide - Protein Information

Name CHRNA3 (HGNC:1957)

Synonyms NACHRA3

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 neurotrasnmitter 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:31488329, PubMed:31708116). CHRNA3 forms heteropentameric neuronal acetylcholine receptors with CHRNB2 and CHRNB4, with CHRNA5, and CHRNB3 as accesory subunits (PubMed:20881005, PubMed:8663494). CHRNA3:CHRNB4 being predominant in neurons of the autonomic ganglia, it is known as ganglionic nicotinic receptor (PubMed:31488329). CHRNA3:CHRNB4 or CHRNA3:CHRNA5:CHRNB4 play also an important role in the habenulo-interpeduncular tract, modulating the mesolimbic dopamine

system and affecting reward circuits and addiction (By similarity). Hypothalamic CHRNA3:CHRNB4 nAChR activation by nicotine leads to activation of POMC neurons and a decrease in food intake (By similarity). Also expressed in the urothelium where it modulates reflex bladder activity by increasing intracellular calcium through extracellular influx and basal ATP release (By similarity).

Cellular Location
Synaptic cell membrane {ECO:0000250|UniProtKB:P04757}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum {ECO:0000250|UniProtKB:P04757}. Golgi apparatus {ECO:0000250|UniProtKB:P04757}. Note=Interaction with UBXN2A/UBXD4 promotes translocation to the plasma membrane {ECO:0000250|UniProtKB:P04757}

CHRNA3 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CHRNA3 Antibody (N-term) Blocking Peptide - Images

CHRNA3 Antibody (N-term) Blocking Peptide - Background

CHRNA3 locus encodes a member of the nicotinic acetylcholine receptor family of proteins. Members of this family of proteins form pentameric complexes comprised of both alpha and beta subunits. This locus encodes an alpha-type subunit, as it contains characteristic adjacent cysteine residues. The encoded protein is a ligand-gated ion channel that likely plays a role in neurotransmission. Polymorphisms in this gene have been associated with an increased risk of smoking initiation and an increased susceptibility to lung cancer. Alternatively spliced transcript variants have been described.

CHRNA3 Antibody (N-term) Blocking Peptide - References

Cho, M.H., et al. Nat. Genet. 42(3):200-202(2010)Girard, N., et al. Clin. Cancer Res. 16(2):755-763(2010)Grando, S.A., et al. J. Invest. Dermatol. 105(6):774-781(1995)