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CHRNA3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5022A

Specification

CHRNA3 Antibody (N-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P32297
Other Accession	Q07263
Reactivity	**Human**
Predicted	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**57480**
Antigen Region	**25-52**

CHRNA3 Antibody (N-term) - Additional Information

Gene ID 1136

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

Target/Specificity
This CHRNA3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-52 amino acids from the N-terminal region of human CHRNA3.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CHRNA3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CHRNA3 Antibody (N-term) - 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) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CHRNA3 Antibody (N-term) - Images

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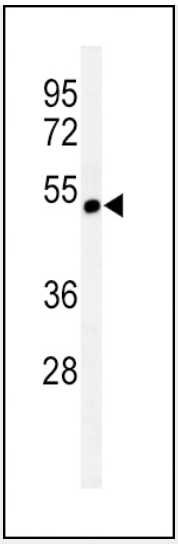
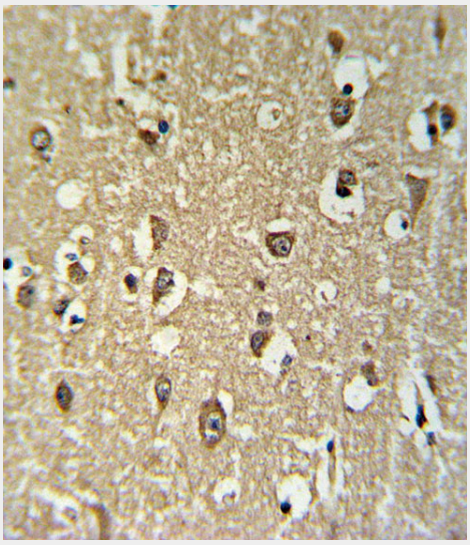


Western blot analysis of CHRNA3 Antibody (N-term) (Cat. #AP5022a) in CEM cell line lysates (35ug/lane).CHRNA3 (arrow) was detected using the purified Pab.



CHRNA3 Antibody (N-term) (Cat. #AP5022a) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CHRNA3 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

CHRNA3 Antibody (N-term) - 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) - 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)

CHRNA3 Antibody (N-term) - Citations

- Cellular Zinc Homeostasis Contributes to Neuronal Differentiation in Human Induced Pluripotent Stem Cells.