

**Goat Anti-CHRNA3 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1242a****Specification**

---

**Goat Anti-CHRNA3 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q05901</a>
Other Accession	<a href="#">NP_000740</a> , <a href="#">1142</a> , <a href="#">108043 (mouse)</a> , <a href="#">171131 (rat)</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	52729

**Goat Anti-CHRNA3 Antibody - Additional Information****Gene ID** 1142**Other Names**

Neuronal acetylcholine receptor subunit beta-3, CHRNA3

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-CHRNA3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-CHRNA3 Antibody - Protein Information****Name** CHRNA3**Function**

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.

**Cellular Location**

Postsynaptic cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein

### Goat Anti-CHRNA3 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-CHRNA3 Antibody - Images



AF1242a (1 µg/ml) staining of Human Cerebellum lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-CHRNA3 Antibody - Background

The nicotinic acetylcholine receptors (nAChRs) are members of a superfamily of ligand-gated ion channels that mediate fast signal transmission at synapses. The nAChRs are (hetero)pentamers composed of homologous subunits. The subunits that make up the muscle and neuronal forms of nAChRs are encoded by separate genes and have different primary structure. There are several subtypes of neuronal nAChRs that vary based on which homologous subunits are arranged around the central channel. They are classified as alpha-subunits if, like muscle alpha-1 (MIM 100690), they have a pair of adjacent cysteines as part of the presumed acetylcholine binding site. Subunits lacking these cysteine residues are classified as beta-subunits (Groot Kormelink and Luyten, 1997 [PubMed 9009220]). Elliott et al. (1996) [PubMed 8906617] stated that the proposed structure for each subunit is a conserved N-terminal extracellular domain followed by 3 conserved transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region.

### Goat Anti-CHRNA3 Antibody - References

Multiple cholinergic nicotinic receptor genes affect nicotine dependence risk in African and European Americans. Saccone NL, et al. Genes Brain Behav, 2010 Jun 22. PMID 20584212.  
Sequence variants at CHRNA3-CHRNA6 and CYP2A6 affect smoking behavior. Thorgeirsson TE, et al.

Nat Genet, 2010 May. PMID 20418888.

Why do young women smoke? VI. A controlled study of nicotine effects on attention: pharmacogenetic interactions. Rigbi A, et al. Pharmacogenomics J, 2010 Mar 16. PMID 20231857.

Association of CHRN genes with dizziness to tobacco. Ehringer MA, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Mar 5. PMID 19760673.

SNPs in CHRNA6 and CHRNA3 are associated with alcohol consumption in a nationally representative sample. Hoft NR, et al. Genes Brain Behav, 2009 Aug. PMID 19500157.