

Datasheet for ABIN7581858
anti-CHRNA9 antibody (Cytoplasmic)



[Go to Product page](#)

Overview

Quantity:	50 µL
Target:	CHRNA9
Binding Specificity:	AA 436-450, Cytoplasmic
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CHRNA9 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Nicotinic Acetylcholine Receptor α9
Immunogen:	(C)KDHKATNSKGSEWKK, corresponding to amino acid residues 436-450 of rat nAChRα9
Sequence:	(C)KDHKATNSKG SEWKK
Isotype:	IgG
Specificity:	2nd intracellular loop
Predicted Reactivity:	Mouse,human - identical
Characteristics:	Highly specific antibody directed against an epitope of rat nAChRα9. Anti-Nicotinic Acetylcholine Receptor α9 (CHRNA9) Antibody (ABIN7581858) can be used western blot and immunohistochemistry applications. It has been designed to recognize nAChRα9 from human, rat and mouse samples.

Product Details

Purification: Affinity purified on immobilized antigen.

Target Details

Target: CHRNA9

Alternative Name: CHRNA9 ([CHRNA9 Products](#))

Background: NACHR α 9, nAChR alpha-9, Neuronal acetylcholine receptor subunit alpha-9, ACRA9, The nicotinic acetylcholine receptors (nAChRs) are ionotropic multi-subunit, neurotransmitter-gated receptors of the cholinergic system. These receptors are responsible for mediating the effects of the neurotransmitter acetylcholine (ACh). They are assembled from one or more α subunits (α 1- α 10) alone or together with one or more β subunits (β 1- β 4). The receptors are also a target of the biologic compound nicotine, which mostly mimics the effects of acetylcholine on the receptors by binding as an agonist to α subunit of nAChRs. nAChRs play critical physiologic roles in the central and peripheral nervous systems. They regulate neurotransmitter release, cell excitability, neuronal integration, and are involved in functions such as sleep and arousal patterns, fatigue, hunger, anxiety, and pain processing^{1,2}. The structure of each subunit is composed of an extracellular domain, which harbors the binding site, four transmembrane α -helices (TM1-4), and a variable intracellular region⁴. The α subunits have a defining "cysteine loop" that contains two vicinal cysteine residues³. nAChRs containing the α 9 subunit are expressed in a variety of non-neuronal tissues starting from immune cells to breast carcinomas. The α 9 subunit is able to form a functional homomeric receptor and in addition to co-assemble with the α 10 subunit into functional heteromeric nAChRs³. α 9-containing nAChRs play an important role in pain, inflammation, keratinocyte adhesion and in mediating synaptic transmission between the efferent olivocochlear fibers and cochlear hair cells³. nAChRs are involved in pathologies, such as myasthenia, epilepsy, schizophrenia, Parkinson's disease, autism, dementia with Lewy bodies, Alzheimer's disease, and addiction³.

Gene ID: 65024

UniProt: [P43144](#)

Pathways: [Sensory Perception of Sound](#)

Application Details

Application Notes: Antigen preadsorption control: 1 μ g peptide per 1 μ g antibody
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:400
Application Dilutions Western blot wb: 1:400

Application Details

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	<p>Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C.</p> <p>Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).</p>