

Datasheet for ABIN7581862  
**anti-CHRNA4 antibody (Extracellular)**



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## Overview

Quantity:	200 µL
Target:	CHRNA4
Binding Specificity:	AA 95-108, Extracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CHRNA4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunochromatography (IC), Immunofluorescence (IF), Live Cell Imaging (LCI)

## Product Details

Purpose:	A Rabbit Polyclonal Antibody to Nicotinic Acetylcholine Receptor β4
Immunogen:	CYEGVNILRIPAKR, corresponding to amino acid residues 95-108 of rat nAChRβ4
Sequence:	CYEGVNILRI PAKR
Isotype:	IgG
Specificity:	Extracellular, N-terminus
Predicted Reactivity:	Mouse - identical, human - 13,14 amino acid residues identical
Characteristics:	Anti-Nicotinic Acetylcholine Receptor β4 (CHRNA4) (extracellular) Antibody (ABIN7581862) is a highly specific antibody directed against an epitope of the rat protein. The antibody can be used in western blot, immunohistochemistry, live cell imaging, and immunocytochemistry

## Product Details

applications. It has been designed to recognize nAChR $\beta$ 4 from mouse, rat, and human samples.

Purification: Affinity purified on immobilized antigen.

## Target Details

Target: CHRNB4

Alternative Name: CHRNB4 ([CHRNB4 Products](#))

Background: NACHR  $\beta$ 4, Neuronal acetylcholine receptor subunit beta-4, Cholinergic receptor nicotinic beta 4, Acetylcholine, released by cholinergic neurons, activates two groups of acetylcholine receptors (AChRs), muscarinic AChRs (mAChRs), which belong to the G-protein coupled receptor (GPCR) superfamily, and nicotinic AChRs (nAChRs), which belong to the ligand-gated ion channel superfamily. nAChRs also respond to nicotine, hence their name<sup>1</sup>. To date, 17 different but related subunits of nAChRs have been identified and cloned. They consist of  $\alpha$  subunits ( $\alpha$ 1-10), which are responsible for the binding of ligands. In fact, this subunit includes a Cys-loop in the first extracellular domain that is required for agonist binding<sup>2</sup>. The other subunits responsible for making up the active receptor are the  $\beta$  ( $\beta$ 1-4),  $\gamma$ ,  $\delta$  and  $\epsilon$  subunits<sup>3</sup>. Structurally, all subunits have the following: a conserved large extracellular N-terminal domain, three conserved transmembrane domains, a variable cytoplasmic loop and a fourth transmembrane domain with a short extracellular C-terminal domain. An active nAChR is generally a heteropentamer of these various subunits organized around a central pore<sup>1</sup>. While most  $\beta$  subunits are neuronal, the  $\beta$ 1 subunit forms functional receptors along with other subunits in the muscle<sup>3</sup>. In neurons the  $\alpha$ 2- $\alpha$ 6 and  $\beta$ 2- $\beta$ 4 subunits form heteropentameric receptors, usually with a ( $\alpha$ x)<sup>2</sup>( $\beta$ y)<sup>3</sup> stoichiometry<sup>3</sup>.

Gene ID: 25103

UniProt: [P12392](#)

## Application Details

Application Notes: Antigen preadsorption control: 1  $\mu$ g peptide per 1  $\mu$ g antibody  
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A  
Application Dilutions Western blot wb: 1:200

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>