

Rabbit Anti-CHRNA1/nAChR α 1 Polyclonal: RC0042-0.1ML

Intended Use: For Research Use Only

Description: Neuronal acetylcholine receptor subunit alpha-1, also known as nAChR α 1, is a protein that in humans is encoded by the CHRNA1 gene. The protein encoded by this gene is a subunit of certain nicotinic acetylcholine receptors (nAChR). It mediates synaptic transmission at the neuromuscular junction. The channel-linked AChR that mediates rapid, excitatory actions of acetylcholine is called nicotinic AChR (nAChR) because it can be activated by nicotine. The non-channel linked AChR that mediates the slow actions of acetylcholine, which can be either inhibitory or excitatory, is called muscarinic AChR (mAChR) because it can be activated by muscarine. The nAChRs fall into two subclasses, the muscle-type and the neuronal-type. The muscle-type receptor is a pentameric glycoprotein of five membrane spanning subunits, (2 α 1's, beta 1, gamma or epsilon and delta) which form a ligand gated ion channel.

Specifications:

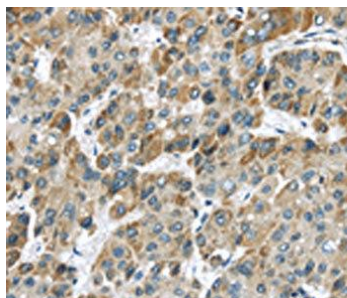
Clone:	Polyclonal
Source:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from the Internal region of human CHRNA1
Reactivity:	Human, mouse, rat
Localization:	Cytoplasm
Formulation:	Purified antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC
Package:	

Description	Catalog No.	Size
CHRNA1/nAChR α 1 Polyclonal Concentrated	RC0042-0.1ML	0.1 ml

IHC Procedure*:

Positive Control Tissue:	Kidney, brain, liver cancer, skeletal muscle tissue
Concentrated Dilution:	25-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	Overnight at 4°C
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human liver cancer stained with anti-CHRNA1 using DAB

References:

1. Causal Variants in CHRNA1 and CHRNA1 Genes for Anti-acetylcholine Receptor Antibody Positive Myasthenia Gravis: Evidence from Bayesian Fine-Mapping and Genetic Association Study. Nemanja Garai, et al. Mol Neurobiol. Apr 25;62(9):11286–11296, 2025. doi: 10.1007/s12035-025-04958-7.
2. The expression of nicotinic acetylcholine receptor subunits and their associations with local immune cells and prognosis in oral squamous cell carcinoma. Chi-Maw Lin, et al. Cancer Med. Sep 1;12(18):18918–18930, 2023. doi: 10.1002/cam4.6482.

Doc. 100-RC0042
Rev. A