

Rabbit Anti-CHRNA9 antibody

SL12113R

Product Name CHRNA9

Chinese Name 烟碱型乙酰胆碱受体 $\alpha 9$ /AChR $\alpha 9$ 抗体

Alias Cholinergic receptor nicotinic alpha 9; Cholinergic receptor nicotinic alpha polypeptide 9; HSA243342; MGC142109; MGC142135; NACHR alpha 9; NACHRA9; Neuronal acetylcholine receptor protein subunit alpha 9 precursor; ACHA9_HUMAN.

Research Area Neurobiology Channel protein The cell membrane 受体 lymphocyte t-lymphocyte b-lymphocyte

Immunogen Species Rabbit

Clonality Polyclonal

React Species Mouse, Rat, (predicted: Human, Chicken, Dog, Pig, Cow, Horse, Rabbit,)
WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 52kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human CHRNA9: 51-150/479 <Extracellular>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

PubMed

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Members of the ligand-gated ion channel receptor family are characterized by their fast transmitting response to neurotransmitters. Two important members of this family are the nicotinic acetylcholine and glutamate receptors, both of which are composed of five homologous subunits forming a transmembrane aqueous pore. These transmembrane receptors change conformation in response to their cognate neurotransmitter. Nicotinic acetylcholine receptors (AChRs) are found at the postsynaptic membrane of the neuromuscular junction and bind acetylcholine molecules, allowing ions to move through the pore. AChR alpha 9 is the only AChR found in cochlear hair cells. In adult rat cochlear outer hair cells (OHCs), AChR alpha 9 is expressed primarily in basal regions, where it is a component of the cholinergic receptor, while in inner hair cells (IHCs), it is expressed primarily in apical regions. The alpha 9 subunit mediates efferent synaptic transmission between cholinergic olivocochlear fibers and OHCs. One of the main functions of the AChR alpha 9 channel is to provide a pathway for calcium ion influx. AChR alpha 9 may also influence the arrival of efferent axons.

Product Detail

Function:

CHRNA9 is a member of the ligand gated ionic channel family and nicotinic acetylcholine receptor superfamily. CHRNA9 forms homo- or hetero-oligomeric divalent cation channels. It is involved in cochlea hair cell development and is also expressed in the outer hair cells (OHCs) of the adult cochlea. The protein is additionally expressed in keratinocytes, the pituitary gland, B-cells and T-cells.

Subunit:

Can form homo- or hetero-oligomeric channels in conjunction with CHRNA10. The native outer hair cell receptor may be composed of CHRNA9-CHRNA10 hetero-oligomers.

Subcellular Location:

Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein (Probable). Cell membrane; Multi-pass membrane protein (Probable).

Tissue Specificity:

Expressed in cochlea, keratinocytes, pituitary gland, B-cells and T-cells.

Similarity:

Belongs to the ligand-gated ion channel (TC 1.A.9) family. Acetylcholine receptor (TC 1.A.9.1) subfamily. Alpha-9/CHRNA9 sub-subfamily.

SWISS:

Q9UGM1

Gene ID:
55584

Database links:

[Entrez Gene: 55584](#) Human

[Entrez Gene: 231252](#) Mouse

[Entrez Gene: 65024](#) Rat

[Omim: 605116](#) Human

[SwissProt: Q9UGM1](#) Human

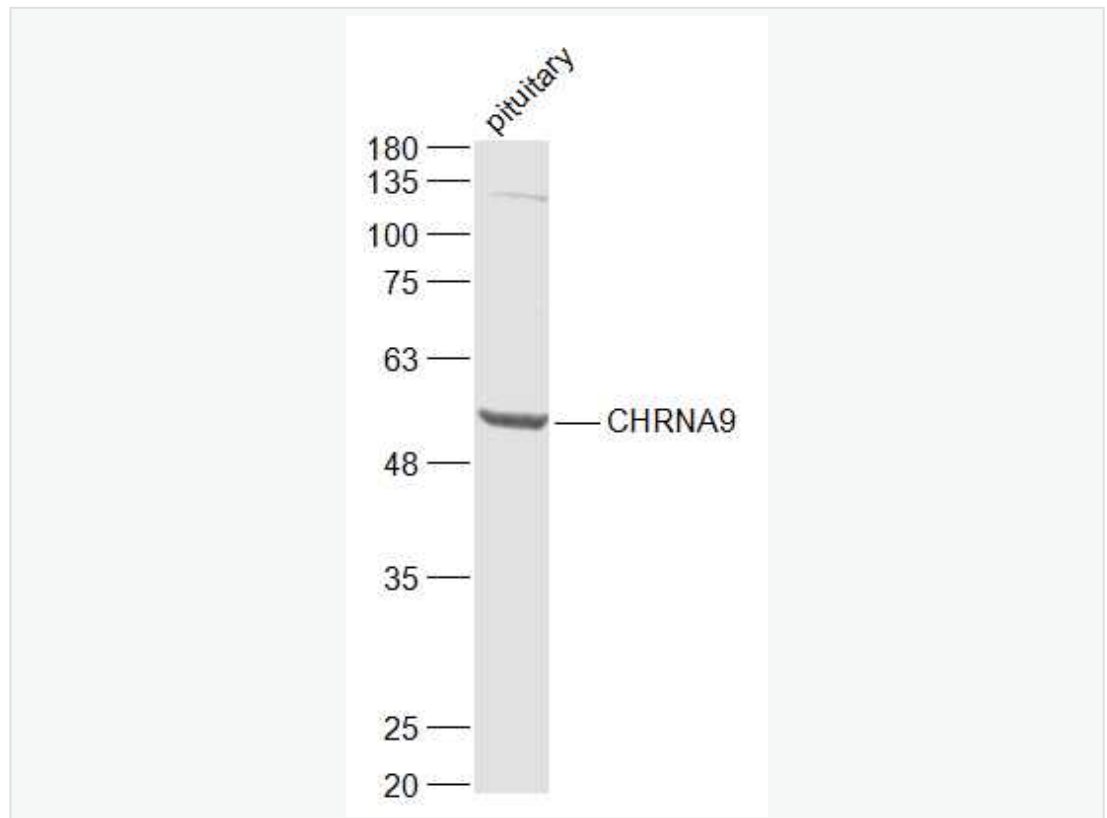
[SwissProt: P43144](#) Rat

[Unigene: 272278](#) Human

[Unigene: 140015](#) Mouse

[Unigene: 54463](#) Rat

**Product
Picture**



Sample:

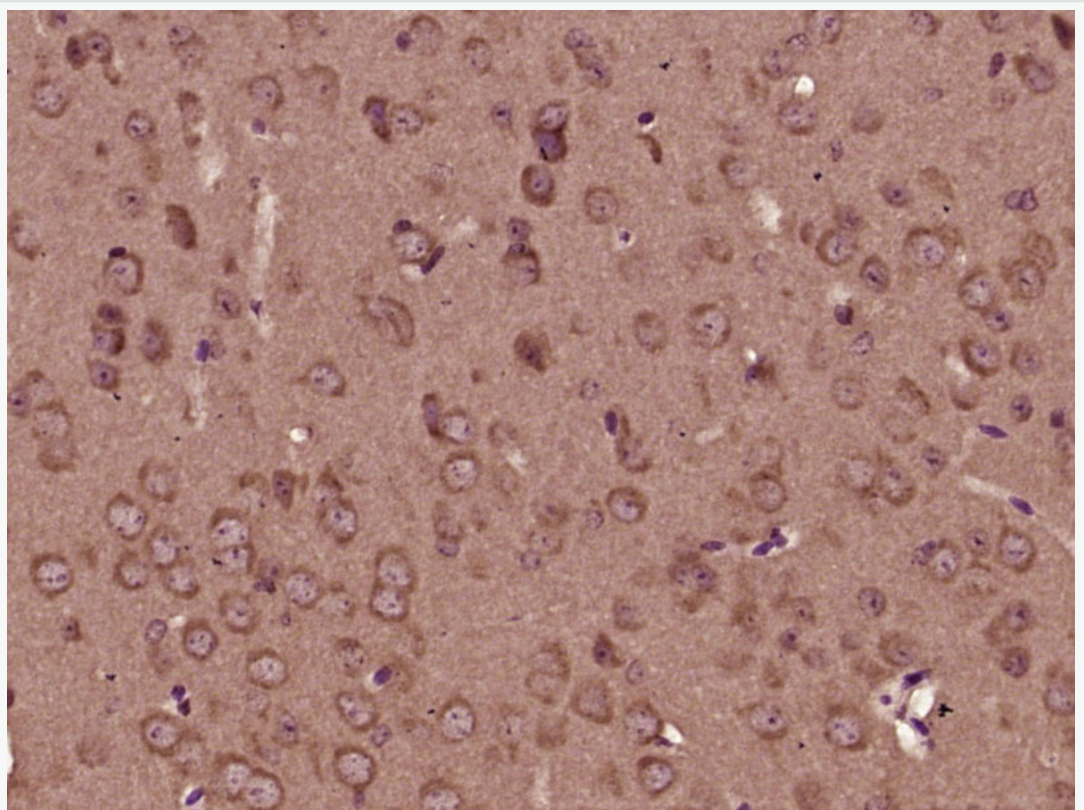
Pituitary(Rat) Lysate at 40 ug

Primary: Anti-CHRNA9 (SL12113R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 52 kD

Observed band size: 52 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at



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37°C for 30min; Antibody incubation with (CHRNA9) Polyclonal Antibody, Unconjugated (SL12113R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.