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**Product Name: CHRNA7 Mouse Monoclonal Antibody****Catalog #: AMM81899**

For research use only.

**Summary**

<b>Description</b>	Mouse monoclonal Antibody
<b>Host</b>	Mouse
<b>Application</b>	WB,ELISA,FC
<b>Reactivity</b>	Human,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	Mouse IgG1
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Purified antibody in PBS with 0.05% sodium azide
<b>Purification</b>	Affinity Purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,ELISA 1:5000-1:20000,FC 1:200-1:400
<b>Molecular Weight</b>	56.4kDa

**Antigen Information**

<b>Gene Name</b>	CHRNA7
<b>Alternative Names</b>	NACHRA7; CHRNA7-2
<b>Gene ID</b>	1139.0
<b>SwissProt ID</b>	P36544
<b>Immunogen</b>	Purified recombinant fragment of human CHRNA7 (AA: extra 52-259) expressed in E. Coli.

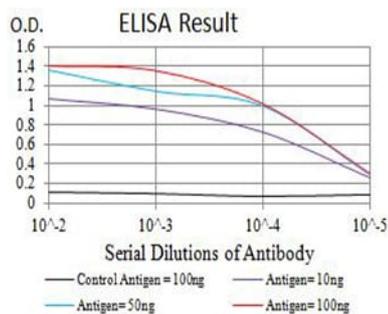
**Background**

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 thought to be hetero-pentamers composed of homologous subunits. The proposed structure for each subunit is a conserved N-terminal extracellular domain followed by three conserved

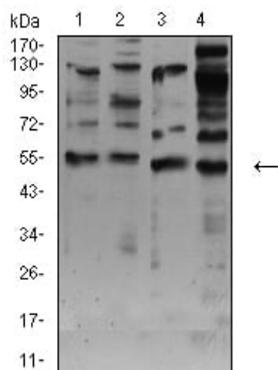
transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region. The protein encoded by this gene forms a homo-oligomeric channel, displays marked permeability to calcium ions and is a major component of brain nicotinic receptors that are blocked by, and highly sensitive to, alpha-bungarotoxin. Once this receptor binds acetylcholine, it undergoes an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane. This gene is located in a region identified as a major susceptibility locus for juvenile myoclonic epilepsy and a chromosomal location involved in the genetic transmission of schizophrenia. An evolutionarily recent partial duplication event in this region results in a hybrid containing sequence from this gene and a novel FAM7A gene. Alternative splicing results in multiple transcript variants.

## Research Area

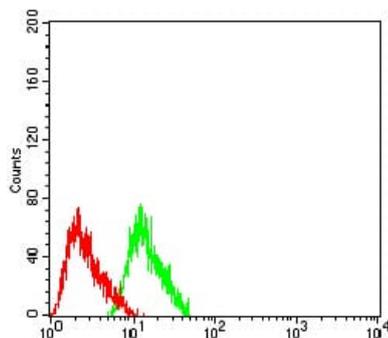
### Image Data



Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)



Western blot analysis using CHRNA7 mouse mAb against membrane protein lysate of C6 (1), membrane protein lysate of SK-N-SH (2), C6 (3), and HepG2 (4) cell lysate.



Flow cytometric analysis of SH-SY5Y cells using CHRNA7 mouse mAb (green) and negative control (red).

