Data Sheet (Cat.No.TMAB-00430)

Anti-CHRNA7 Polyclonal Antibody

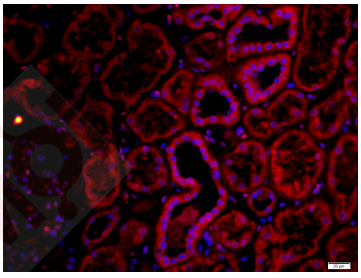
Product Details

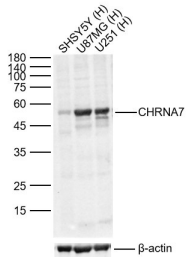
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Chicken)
Molecular Weight:	Theoretical: 55 kDa. Actual: 55 kDa.
Purification:	Protein A purified

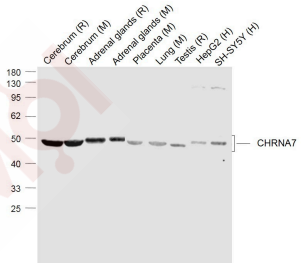
Applications

Verified Activity:

1. Tissue/cell: human kidney tissue;4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Blocking buffer (normal goat serum) at 37°C for 20 min;
Incubation: Anti-CHRNA7 Polyclonal Antibody, Unconjugated (TMAB-00430) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated used at 1:200 dilution for 40 minutes at 37°C. DAPI (5 μg/ml,blue) was used to stain the cell nucleus.
2. Sample:
Lane 1: Human SH-SY5Y cell Lysates
Lane 2: Human U-87 MG cell Lysates
Lane 3: Human U251 cell Lysates
Primary: Anti-CHRNA7 (TMAB-00430) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 55 kDa
Observed band size: 55 kDa
3. Sample:
Lane 1: Cerebrum (Rat) Lysate at 40 μg
Lane 2: Cerebrum (Mouse) Lysate at 40 μg
Lane 3: Adrenal glands (Rat) Lysate at 40 μg
Lane 4: Adrenal glands (Mouse) Lysate at 40 μg
Lane 5: Placenta (Mouse) Lysate at 40 μg
Lane 6: Lung (Mouse) Lysate at 40 μg
Lane 7: Testis (Rat) Lysate at 40 μg
Lane 8: HepG2 (Human) Cell Lysate at 30 μg
Lane 9: SH-SY5Y (Human) Cell Lysate at 30 μg
Primary: Anti-CHRNA7 (TMAB-00430) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 56/50 kDa
Observed band size: 48 kD







Application: WB

Recommended WB=1:500-2000

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: human CHRNA7

Antigen Species: Human

Gene ID: 1139

Uniprot ID: P36544

Synonyms: alpha7 nicr;Neuronal acetylcholine receptor subunit alpha-7;CHRFAM7A;MGC120482;D10;D 10; ALPHA7;Acra7;ACHA7;MGC120483;CHRNA7 DR1;AChR alpha 7 Receptor;alpha 7 neuronal nicotinic acetylcholine receptor FAM7A hybrid;NARAD;ACHR ALPHA 7;CHRNA7 FAM7A fusion protein;BTX;CHRNA7;CHRNA7-2;ALPHA7 NICOTINIC ACETYLCHOLINE RECEPTOR;CHRNA7 (cholinergic receptor nicotinic alpha 7 exons 5 10) and FAM7A(family with sequence similarity 7A exons A E) fusion;NACHR alpha7;ALPHA-7NACHR;NACHRA7;CHRNA7 FAM7A fusion; cholinergic receptor, nicotinic, alpha 7

Biology Area: nAch Receptors,Hypoxia,Response to hypoxia

Research Background

The Nicotinic Acetylcholine Receptors are members of a superfamily of ligand gated ion channels that mediate fast signal transmission at synapses. These receptors 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 Nicotinic Acetylcholine Receptor alpha 7 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.

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