

AChR β 1 (73): sc-58598

BACKGROUND

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. Glutamate receptors are found in the postsynaptic membrane of cells in the central nervous system. The activity that is generated at the synapse by the binding of acetylcholine is terminated by acetylcholinesterase, an enzyme that rapidly hydrolyzes acetylcholine. AChR β 1, also known as CHRN β 1, CMS1D, CMS2A, SCCMS or CHRN β 1, is a 501 amino acid protein that belongs to the ligand-gated ionic channel family. Defects in the gene encoding AChR β 1 may be the cause of congenital myasthenic syndrome slow-channel type (SCCMS), which is characterized by muscle weakness affecting the axial and limb muscles, the ocular muscles and the facial and bulbar musculature.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CHRN β 1 (human) mapping to 17p13.1; Chrn β 1 (mouse) mapping to 11 B3.

SOURCE

AChR β 1 (73) is a rat monoclonal antibody raised against full length native AChR β 1 of bovine origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

AChR β 1 (73) is recommended for detection of the extracellular surface of muscle nicotinic Acetylcholine Receptor β 1-subunits of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

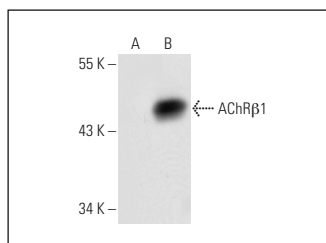
AChR β 1 (73) is also recommended for detection of the extracellular surface of muscle nicotinic Acetylcholine Receptor β 1-subunits in additional species, including bovine.

Suitable for use as control antibody for AChR β 1 siRNA (h): sc-29630, AChR β 1 siRNA (m): sc-29631, AChR β 1 shRNA Plasmid (h): sc-29630-SH, AChR β 1 shRNA Plasmid (m): sc-29631-SH, AChR β 1 shRNA (h) Lentiviral Particles: sc-29630-V and AChR β 1 shRNA (m) Lentiviral Particles: sc-29631-V.

Molecular Weight of AChR β 1: 55 kDa.

Positive Controls: AChR β 1 (h): 293 Lysate: sc-111175, IMR-32 cell lysate: sc-2409 or PC-12 cell lysate: sc-2250.

DATA



AChR β 1 (73): sc-58598. Western blot analysis of AChR β 1 expression in non-transfected: sc-110760 (A) and human AChR β 1 transfected: sc-111175 (B) 293 whole cell lysates.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.