

# AChR $\beta$ 1 (163): sc-65793

## 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 $\beta$ 1, also known as CHRN $\beta$ , CMS1D, CMS2A, SCCMS or CHRN $\beta$ 1, is a 501 amino acid protein that belongs to the ligand-gated ionic channel family. Defects in the gene encoding AChR $\beta$ 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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## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## SOURCE

AChR $\beta$ 1 (163) is a rat monoclonal antibody raised against denatured, purified AChR of torpedo origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

AChR $\beta$ 1 (163) is recommended for detection of nicotinic AChR $\beta$ 1 cytoplasmic domain of torpedo origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of AChR $\beta$ 1: 55 kDa.

## RESEARCH USE

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