

AChR β 1 (148): sc-65813

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 CHRNB, CMS1D, CMS2A, SCCMS or CHRNB1, 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: CHRNB1 (human) mapping to 17p13.1; Chnrb1 (mouse) mapping to 11 B3.

SOURCE

AChR β 1 (148) is a rat monoclonal antibody raised against denatured, purified AChR of *Torpedo* origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AChR β 1 (148) is available conjugated to agarose (sc-65813 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65813 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65813 PE), fluorescein (sc-65813 FITC), Alexa Fluor[®] 488 (sc-65813 AF488), Alexa Fluor[®] 546 (sc-65813 AF546), Alexa Fluor[®] 594 (sc-65813 AF594) or Alexa Fluor[®] 647 (sc-65813 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-65813 AF680) or Alexa Fluor[®] 790 (sc-65813 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

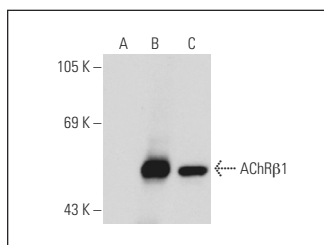
AChR β 1 (148) is recommended for detection of nicotinic AChR β 1 cytoplasmic domain of mouse, rat, human, bovine, *Torpedo*, *Rana* and *Xenopus* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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: IMR-32 cell lysate: sc-2409 or AChR β 1 (h): 293T Lysate: sc-171924.

DATA



AChR β 1 (148): sc-65813. Western blot analysis of AChR β 1 expression in non-transfected 293T: sc-117752 (A), human AChR β 1 transfected 293T: sc-171924 (B) and IMR-32 (C) 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.

PROTOCOLS

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