

rapsyn (H-205): sc-28933

BACKGROUND

The RAPSIN gene locus is located on chromosome 11p11.2 and encodes a peripheral membrane protein. Rapsyn (receptor-associated protein of the synapse) is expressed in the postsynaptic membrane of skeletal muscle. Rapsyn is required for the clustering of nicotinic acetylcholine receptors (nAChR). Rapsyn self-associates through at least two of its seven tetra-tri-copeptide repeats (TPRs). Rapsyn interacts with the large intracellular domain of the nAChR alpha subunit through the hydrophobic surface of the coiled-coil domain. Rapsyn modifies trafficking of AChR within the cell. Expression is essential for agrin-induced AChR clustering. Overexpression inhibits agrin-induced AChR clustering pathway. Absence of rapsyn causes deficit in the formation of postsynaptic specializations at neuromuscular synapse, which increases axonal branching and motoneuron survival. Rapsyn plays a role in selective targeting of newly synthesized intracellular AChR to postsynaptic membrane.

CHROMOSOMAL LOCATION

Genetic locus: RAPSIN (human) mapping to 11p11.2; Rapsn (mouse) mapping to 2 E1.

SOURCE

rapsyn (H-205) is a rabbit polyclonal antibody raised against amino acids 178-382 mapping near the C-terminus of rapsyn of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

rapsyn (H-205) is recommended for detection of rapsyn of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

rapsyn (H-205) is also recommended for detection of rapsyn in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for rapsyn siRNA (h): sc-42206, rapsyn siRNA (m): sc-42207, rapsyn shRNA Plasmid (h): sc-42206-SH, rapsyn shRNA Plasmid (m): sc-42207-SH, rapsyn shRNA (h) Lentiviral Particles: sc-42206-V and rapsyn shRNA (m) Lentiviral Particles: sc-42207-V.

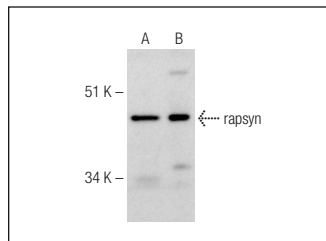
Molecular Weight of rapsyn: 43 kDa.

Positive Controls: A-673 cell lysate: sc-2414 or HeLa whole cell lysate: sc-2200.

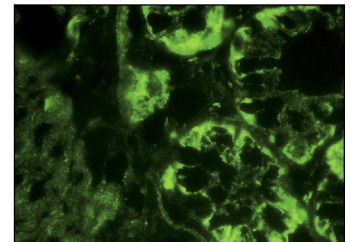
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



rapsyn (H-205): sc-28933. Western blot analysis of rapsyn expression in A-673 (A) and HeLa (B) whole cell lysates.



rapsyn (H-205): sc-28933. Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
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Try **rapsyn (1234): sc-58585**, our highly recommended monoclonal alternative to rapsyn (H-205).