

SNAP 25 (SP14): sc-65508

BACKGROUND

Syntaxins were originally thought to be docking proteins, but have now been categorized as anchoring proteins that anchor themselves to the cytoplasmic surfaces of cellular membranes. Syntaxins have been shown to bind to various proteins involved in exocytosis, including VAMPs (vesicle-associated membrane proteins), NSF (N-ethylmaleimide-sensitive factor), SNAP 25, SNAPs (soluble NSF attachment proteins) and Synaptotagmin. VAMPs, also designated synaptobrevins, including VAMP-1 and VAMP-2, and Synaptotagmin, a protein that may function as an inhibitor of exocytosis, are vesicular proteins. SNAPs, including α - and γ -SNAP, are cytoplasmic proteins that bind to a membrane receptor complex composed of VAMP, SNAP 25 and Syntaxin. SNAPs mediate the membrane binding of NSF, which is essential for membrane fusion reactions. An additional protein designated synaptophysin may regulate exocytosis by competing with SNAP 25 and Syntaxins for VAMP binding.

CHROMOSOMAL LOCATION

Genetic locus: SNAP25 (human) mapping to 20p12.2; Snap25 (mouse) mapping to 2 F3.

SOURCE

SNAP 25 (SP14) is a mouse monoclonal antibody raised against a crude fraction of human schizophrenic brain homogenate immunoprecipitated using a SYP antibody.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain 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

SNAP 25 (SP14) is recommended for detection of SNAP 25 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

SNAP 25 (SP14) is also recommended for detection of SNAP 25 in additional species, including porcine and hamster.

Suitable for use as control antibody for SNAP 25 siRNA (h): sc-36517, SNAP 25 siRNA (m): sc-36516, SNAP 25 shRNA Plasmid (h): sc-36517-SH, SNAP 25 shRNA Plasmid (m): sc-36516-SH, SNAP 25 shRNA (h) Lentiviral Particles: sc-36517-V and SNAP 25 shRNA (m) Lentiviral Particles: sc-36516-V.

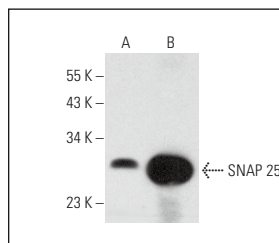
Molecular Weight of SNAP 25: 25 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SH-SY5Y cell lysate: sc-3812 or PC-12 cell lysate: sc-2250.

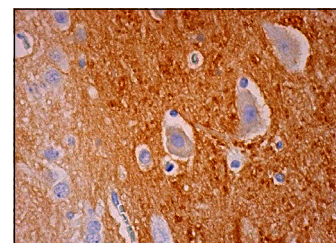
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SNAP 25 (SP14): sc-65508. Western blot analysis of SNAP 25 expression in IMR-32 (A) and PC-12 (B) whole cell lysates.



SNAP 25 (SP14): sc-65508. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing neuropil staining.

SELECT PRODUCT CITATIONS

1. Puddu, A., et al. 2014. Glucagon-like peptide-1 secreting cell function as well as production of inflammatory reactive oxygen species is differently regulated by glycated serum and high levels of glucose. *Mediators Inflamm.* 2014: 923120.
2. Ji, Y., et al. 2021. *Lactobacillus paracasei* ameliorates cognitive impairment in high-fat induced obese mice via Insulin signaling and neuroinflammation pathways. *Food Funct.* 12: 8728-8737.
3. Fang, Z., et al. 2022. Blueberry anthocyanins extract attenuates acrylamide-induced oxidative stress and neuroinflammation in rats. *Oxid. Med. Cell. Longev.* 2022: 7340881.

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.