**SNAP 25 (SP12) : sc-20038**

**BACKGROUND**

Syntaxis 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. Syntaxis 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 (SP12) is a mouse monoclonal antibody raised against a crude synaptic preparation from the post mortem human brain.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SNAP 25 (SP12) is available conjugated to agarose (sc-20038 AC), 50 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20038 HRP), 200 µg/ml, for Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF) and Fluorescence-activated cell sorter (FCM); to either phycoerythrin (sc-20038 PE), fluorescein (sc-20038 FITC), Alexa Fluor® 488 (sc-20038 AF488), Alexa Fluor® 546 (sc-20038 AF546), Alexa Fluor® 594 (sc-20038 AF594) or Alexa Fluor® 647 (sc-20038 AF647), 200 µg/ml, for WB (RGB), IF, IHC (P) and FCM; and to either Alexa Fluor® 880 (sc-20038 AF880) or Alexa Fluor® 790 (sc-20038 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

SNAP 25 (SP12) is recommended for detection of SNAP 25 of broad species 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of SNAP 25: 25 kDa.

Positive Controls: SHP-77 whole cell lysate: sc-364258, mouse brain extract: sc-2253 or rat cerebellum extract: sc-2398.

**STORAGE**

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

**DATA**

SNAP 25 (SP12): sc-20038. Near-infrared western blot analysis of SNAP 25 expression in SHP-77 whole cell lysate (A) and mouse brain (B) and rat cerebellum (C) tissue extracts. Blocked with UltraCruz® Blocking Reagent; sc-516214. Detection reagent used: m-IgG1.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.