Synaptotagmin IX (E-11): sc-398592

BACKGROUND

Synaptotagmins are a large family of synaptic vesicle type III integral membrane proteins that function as regulators of both exocytosis and endocytosis and are involved in neurotransmitter secretion from small secretory vesicles. Synaptotagmin IX, also known as SYT9 (Synaptotagmin-9), is a 491 amino acid protein that localizes to the membrane. Like other Synaptotagmin proteins, Synaptotagmin IX is involved in the calcium-dependent exocytosis of secretory vesicles and is thought to act as a calcium sensor during vesicular trafficking. Synaptotagmin IX contains two C2 domains through which it can bind three calcium ions per subunit. It has been suggested that Synaptotagmin IX is required for the Ca²⁺-dependent release of norepinephrine.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: SYT9 (human) mapping to 11p15.4; Syt9 (mouse) mapping to 11p15.4.

SOURCE

Synaptotagmin IX (E-11) is a mouse monoclonal antibody raised against amino acids 77-131 mapping near the N-terminus of Synaptotagmin IX of human origin.

PRODUCT

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

Synaptotagmin IX (E-11) is available conjugated to agarose (sc-398592 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398592 HRP), 200 µg/ml, for WB, IHC(PO) and ELISA; to either phycoerythrin (sc-398592 PE), fluorescein (sc-398592 FITC), Alexa Fluor® 488 (sc-398592 AF488), Alexa Fluor® 546 (sc-398592 AF546), Alexa Fluor® 594 (sc-398592 AF594) or Alexa Fluor® 647 (sc-398592 AF647), 200 µg/ml, for WB (RGB), IF, IHC(PO) and FCM; and to either Alexa Fluor® 680 (sc-398592 AF680) or Alexa Fluor® 790 (sc-398592 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Synaptotagmin IX (E-11) is recommended for detection of Synaptotagmin IX of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Synaptotagmin IX siRNA (h): sc-96623, Synaptotagmin IX siRNA (m): sc-153974, Synaptotagmin IX shRNA Plasmid (h): sc-96623-SH, Synaptotagmin IX shRNA Plasmid (m): sc-153974-SH, Synaptotagmin IX shRNA (h) Lentiviral Particles: sc-96623-V and Synaptotagmin IX shRNA (m) Lentiviral Particles: sc-153974-V.

Molecular Weight of Synaptotagmin IX: 70 kDa.

Positive Controls: T98G cell lysate: sc-2294, RT-4 whole cell lysate: sc-364257 or human liver extract: sc-363766.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

- Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

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 website at www.scbt.com for detailed protocols and support products.

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