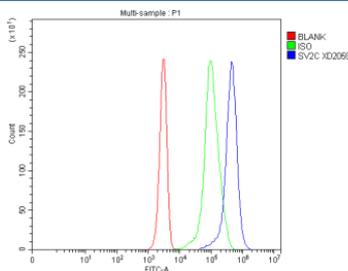


SV2C Antibody / Synaptic vesicle glycoprotein 2C (FY12006)

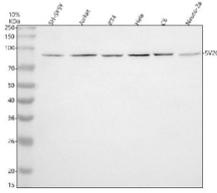
Catalog No.	Formulation	Size
FY12006	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.	100 ug

[Bulk quote request](#)

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q496J9
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This SV2C antibody is available for research use only.



Flow Cytometry analysis of Jurkat cells using anti-SV2C antibody. Overlay histogram showing Jurkat cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SV2C antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of SV2C using anti-SV2C antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human SH-SY5Y whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human RT-4 whole cell lysates, Lane 4: human Hela whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse Neuro-2a whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SV2C antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. The expected band size for SV2C is at 82 kDa.

Description

SV2C antibody detects Synaptic vesicle glycoprotein 2C, encoded by the SV2C gene. Synaptic vesicle glycoprotein 2C is a member of the synaptic vesicle protein family that regulates neurotransmitter release and synaptic transmission. SV2C antibody provides researchers with a critical reagent for studying presynaptic mechanisms, vesicle biology, and neurological disease.

Synaptic vesicle glycoprotein 2C belongs to a family that includes SV2A and SV2B, proteins characterized by multiple transmembrane domains and localization to synaptic vesicles. Research using SV2C antibody has shown that it participates in neurotransmitter loading and exocytosis. SV2C regulates vesicular dynamics by influencing calcium sensitivity and fusion efficiency, ensuring precise control of neurotransmitter release at active zones.

Studies with SV2C antibody have demonstrated that it is expressed primarily in subsets of neurons, including dopaminergic and GABAergic populations. This distribution suggests specialized roles in motor control, reward pathways, and inhibitory signaling. Differences in expression between SV2 isoforms highlight unique contributions of SV2C to synaptic diversity.

Synaptic vesicle glycoprotein 2C has been linked to neurological and psychiatric disorders. Research using SV2C antibody has shown that alterations in SV2C expression are associated with Parkinson disease, where it affects dopaminergic transmission. Variations in SV2C have also been implicated in nicotine addiction and response to antiepileptic drugs. These findings emphasize the clinical relevance of SV2C in nervous system disorders.

SV2C antibody is widely used in western blotting, immunohistochemistry, and immunofluorescence. Western blotting quantifies expression levels in brain tissues, immunohistochemistry reveals localization in discrete neuronal populations, and immunofluorescence demonstrates colocalization with other vesicle proteins. These applications make SV2C antibody a valuable reagent for neuroscience research.

By supplying validated SV2C antibody reagents, NSJ Bioreagents supports studies into synaptic vesicle biology, neurotransmitter regulation, and neurological disease. Detection of Synaptic vesicle glycoprotein 2C provides insights into how specialized presynaptic proteins regulate communication within neural circuits.

Application Notes

Optimal dilution of the SV2C antibody should be determined by the researcher.

Immunogen

E.coli-derived human SV2C recombinant protein (Position: M1-A579) was used as the immunogen for the SV2C antibody.

Storage

After reconstitution, the SV2C antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.