**bs-2407R** **[ Primary Antibody ]**

# SV2A Rabbit pAb

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## DATASHEET

**Host:** Rabbit **Isotype:** IgG

**Clonality:** Polyclonal

**GeneID:** 9900 **SWISS:** Q7L0J3

**Target:** SV2A

**Immunogen:** KLH conjugated synthetic peptide derived from human SV2A: 451-550/743. < Extracellular >

**Purification:** affinity purified by Protein A

**Concentration:** 1mg/ml

**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** SV2s (Synaptic Vesicle protein 2) are integral membrane glycoproteins present in all synaptic vesicles. They have 12 transmembrane domains predicted by sequence analysis. There are three characterized isoforms, SV2A, SV2B and SV2C. SV2A is expressed ubiquitously throughout the brain. SV2B has a more restricted distribution with varying degrees of coexpression with SV2A. SV2C is more closely related to SV2A but shows a very restricted expression pattern. The highest expression levels were observed in phylogenetically old brain areas like pallidum, the midbrain and the olfactory bulb. SV2A is probably involved in the maintenance of a pool of synaptic vesicles competent for calcium-stimulated exocytosis. SV2A is a highly glycosylated synaptic vesicle protein with homology to transmembrane transporters.

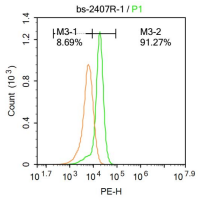
**Applications:** **Flow-Cyt** (1ug/test)

**Reactivity:** Human (predicted: Mouse, Rat, Rabbit, Pig, Cow, Dog, Horse)

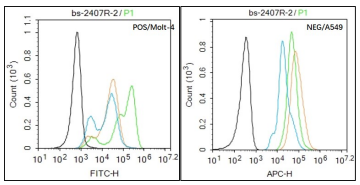
**Predicted MW.:** 83 kDa

**Subcellular Location:** Cell membrane ,Cytoplasm

## VALIDATION IMAGES




Blank control:Molt-4. Primary Antibody (green line): Rabbit Anti-SV2A antibody (bs-2407) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-PE Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at-20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.




Black line : Positive blank control (Molt4); Negative blank control (A549) Green line : Primary Antibody (Rabbit Anti- SV2A antibody (bs-2407R) ) Orange line: Isotype Control Antibody (Rabbit IgG) . Blue line : Secondary Antibody (Goat anti-rabbit IgG-AF488)/(Goat anti-rabbit IgG-AF647) Molt4 (Positive) and A549 (Negative control) cells (black) were fixed with 4% PFA for 10min at room temperature, permeabilized with PBST for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with SV2A Antibody(bs-2407R)at 1:50 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody(blue) incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).

## SELECTED CITATIONS

- **[IF=9]** Wang Xiaoling. et al. Synaptic vesicle glycoprotein 2 A in serum is an ideal biomarker for early diagnosis of Alzheimer’ s disease. ALZHEIMERS RES THER. 2024 Dec;16(1):1-18 IF ;Mouse. 38615037