

bs-4172R**[Primary Antibody]**

Synaptotagmin 1 Rabbit pAb

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DATASHEET

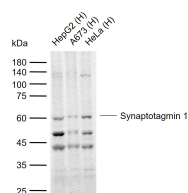
Host: Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 6857**SWISS:** P21579**Target:** Synaptotagmin 1**Immunogen:** KLH conjugated synthetic peptide derived from human Synaptotagmin 1: 165-260/422.**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** 0.01M 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.

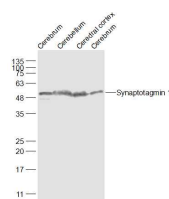
Background: The synaptotagmins are integral membrane proteins of synaptic vesicles thought to serve as Ca(2+) sensors in the process of vesicular trafficking and exocytosis. Calcium binding to synaptotagmin participates in triggering neurotransmitter release at the synapse. The first C2 domain mediates Ca(2+)-dependent phospholipid binding. The second C2 domain mediates interaction with Stonin 2. Synaptotagmin may have a regulatory role in the membrane interactions during trafficking of synaptic vesicles at the active zone of the synapse. It binds acidic phospholipids with a specificity that requires the presence of both an acidic head group and a diacyl backbone. A Ca(2+)-dependent interaction between synaptotagmin and putative receptors for activated protein kinase C has also been reported. It can bind to at least three additional proteins in a Ca(2+)-independent manner; these are neuexins, syntaxin and AP2.

Applications: WB (1:500-2000)**IHC-P** (1:100-500)**IHC-F** (1:100-500)**IF** (1:100-500)**Flow-Cyt** (1µg/Test)**Reactivity:** Human, Mouse, Rat
(predicted: Rabbit, Pig, Cow, Chicken, Dog)**Predicted MW.:** 48 kDa**Subcellular Location:** Cell membrane

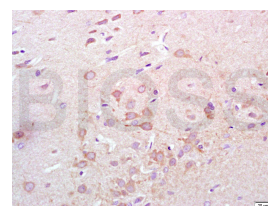
VALIDATION IMAGES



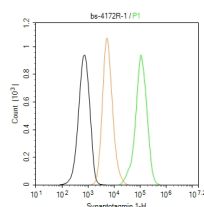
Sample: Lane 1: Human HepG2 cell lysates Lane 2: Human A673 cell lysates Lane 3: Human HeLa cell lysates Primary: Anti-Synaptotagmin 1 (bs-4172R) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 48 kDa Observed band size: 60 kDa



Sample: Cerebrum (Mouse) Lysate at 40 ug Cerebellum (Mouse) Lysate at 40 ug Cerebrum (Rat) Lysate at 40 ug Primary: Anti-Synaptotagmin 1 (bs-4172R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 48 kD Observed band size: 53kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Incubation: Anti-Synaptotagmin 1/SYT1 Polyclonal Antibody, Unconjugated(bs-4172R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

The SH-SY5Y (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, the cells then were incubated in 5%BSA to block non-specific protein-protein interactions (30 min at r.t.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green): Rabbit Anti-Synaptotagmin 1 antibody (bs-4172R): 1 µg/10⁶ cells; Isotype Control (orange): Rabbit IgG (bs-0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed.

— SELECTED CITATIONS —

- **[IF=7.277]** Wang, Yunfeng. et al. Repeated oxytocin prevents central sensitization by regulating synaptic plasticity via oxytocin receptor in a chronic migraine mouse model. J Headache Pain. 2021 Dec;22(1):1-16 WB ;Mouse. 34315403
- **[IF=3.244]** Wang J et al. EphrinB/EphB signaling contributes to the synaptic plasticity of chronic migraine through NR2B phosphorylation. Neuroscience. 2020 Jan 21;428:178-191. WB ;Rat. 31918010