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 neurexins, syntaxin and AP2.

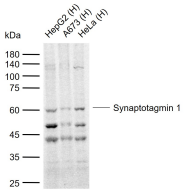
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

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

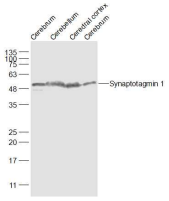
Predicted MW.: 48 kDa

Subcellular Location: Cell membrane

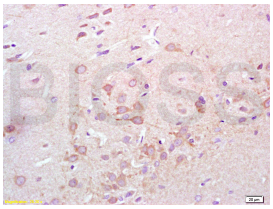
VALIDATION IMAGES



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 Cerebral cortex (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

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