



Rabbit Anti-Synaptotagmin 1 antibody

SL4172R

Product Name:	Synaptotagmin 1
Chinese Name:	突触Binding protein1 抗体
Alias:	DKFZp781D2042; P65; SVP65; Synaptotagmin I; SYT1_HUMAN; Synaptotagmin II; Synaptotagmin IV; Synaptotagmin V; SYT 1; SYT; SYT1; SYT2; SYT3; SYT4; SYT5; SytI.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	48kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Synaptotagmin 1:165-260/422
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

Function:

Cell adhesion protein that promotes adhesion and outgrowth of hippocampal embryonic neurons. Binds directly to bacteria and their components and functions as an opsonin for macrophage phagocytosis of bacteria. Essential in the initiation of the innate immune response and represents a unique pattern-recognition molecule in the ECM for microbial pathogens (By similarity). Binds bacterial lipopolysaccharide (LPS).

Subunit:

Homotetramer (Probable). Interacts with SCAMP5, STON2, SV2A, SV2B, SV2C and RIMS1. Forms a complex with SV2B, syntaxin 1 and SNAP25.

Subcellular Location:

Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Single-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, chromaffin granule membrane; Single-pass membrane protein. Cytoplasm. Note=Synaptic vesicles and chromaffin granules.

Similarity:

Belongs to the synaptotagmin family.
Contains 2 C2 domains.

SWISS:

P21579

Gene ID:

6857

Database links:

[Entrez Gene: 6857](#)Human

[Entrez Gene: 20979](#)Mouse

[Entrez Gene: 25716](#)Rat

[Oimim: 185605](#)Human

[SwissProt: P21579](#)Human

[SwissProt: P46096](#)Mouse

[SwissProt: P21707](#)Rat

[Unigene: 310545](#)Human

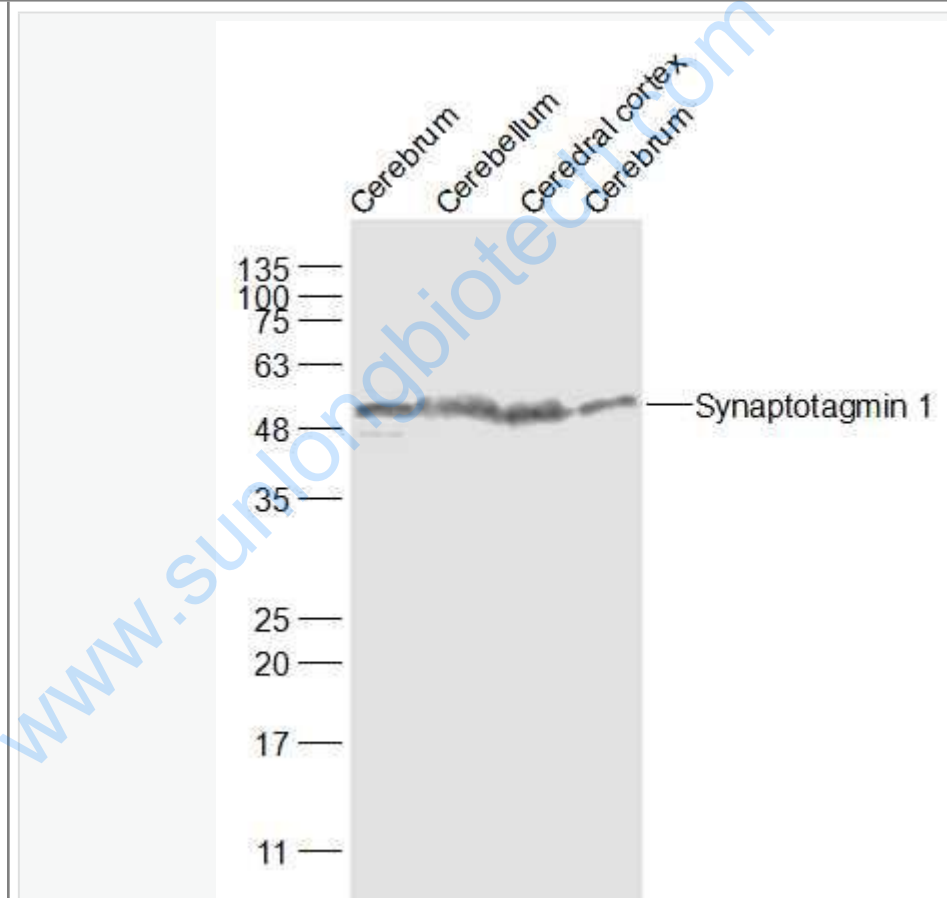
[Unigene: 289702](#)Mouse

[Unigene: 216272](#)Rat

Important Note:

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

Picture:



Sample:

Cerebrum (Mouse) Lysate at 40 ug

Cerebellum (Mouse) Lysate at 40 ug

Cerebral cortex (Mouse) Lysate at 40 ug

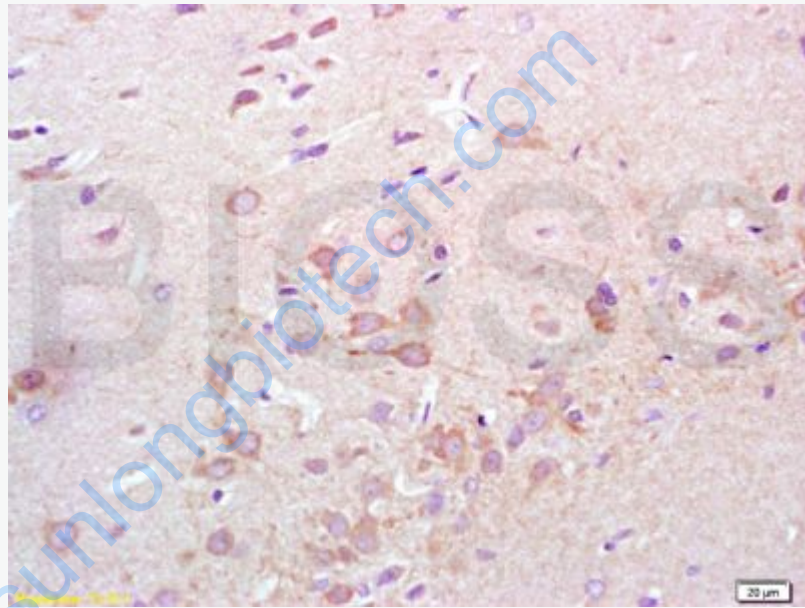
Cerebrum(Rat) Lysate at 40 ug

Primary: Anti-Synaptotagmin 1 (SL4172R) 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(SL4172R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining