



Mouse anti-Rat Synaptotagmin V monoclonal antibody, clone 57 (CABT-B9331)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Rat Synaptotagmin V aa. 15-110
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Rat, Mouse
Clone	57
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB
Format	Liquid
Concentration	250 µg/ml
Size	50 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	Synaptotagmin I belongs to a family of C2 domain containing proteins, which include
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Synatotagmin II to XI and Srg1. All of the members of this protein family contain a single transmembrane region and two copies of an internal repeat that is homologous to the regulatory region of Protein Kinase C (C2A and C2B domains). Synaptotagmin I-V and IX-XI are found in brain, while synaptotagmin VI-VIII are found in non-neuronal tissues. Synaptotagmin I and II have regulatory roles in synaptic vesicle docking and fusion with the plasmalemma. Both synaptotagmin I and II act as vSNAREs that form a complex with SNAP-25 and syntaxin at the plasma membrane. This complex is required for rapid, calcium-dependent synaptic vesicle exocytosis. In addition to their roles in exocytosis, synaptotagmin I and II can bind to calcium channels, calmodulin, and the clathrin adaptor protein AP-2. Synatotagmins III, V, VI, and X cannot bind IP4 like other synaptotagmins, but like most synaptotagmins these family members form heteromers with other synaptotagmins. Synaptotagmins IV, X, and Srg1 may regulate vesicular trafficking during brain development and plasticity. In neuronal and non-neuronal tissues, synaptotagmins may be important for vesicle exocytosis, endocytosis, and trafficking, as well calcium signaling.

Keywords SYT5; synaptotagmin V; synaptotagmin-5; sytV; synaptotagmin 5;

GENE INFORMATION

Entrez Gene ID [6861](#)

UniProt ID [Q00445](#)