

## Syntaxin 5

Cat.No. 110 053; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 (AP staining) <b>IP:</b> yes <b>ICC:</b> 1 : 100 <b>IHC:</b> 1 : 200 <b>IHC-P/FFPE:</b> not tested yet
Immunogen	Recombinant protein corresponding to AA 1 to 279 from mouse Syntaxin5 (UniProt Id: Q8K1E0)
Reactivity	Reacts with: human (Q13190), rat (Q08851), mouse (Q8K1E0), hamster, monkey. Other species not tested yet.
Specificity	Specific for syntaxin 5.
matching control	110-5P
Remarks	This antibody detects the 35 kDa and 42 kDa variants of syntaxin 5.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**Syntaxin 5**, a member of the SNARE family of proteins, is functionally related to the yeast protein Sed5p. Two syntaxin 5 isoforms (35 and 42 kDa) have been described which are generated from the same mRNA by alternative translation initiation. The longer 42 kDa variant contains an N-terminal extension carrying a putative type II ER-retrieval signal. Syntaxin 5 forms a SNARE complex with membrin, GOSR 1, rbet1 and rsec22. A more detailed analysis revealed two subcomplexes within this complex. One contains syntaxin 5 (mainly the shorter 35 kDa variant) and GOSR 1 whereas the other is composed of syntaxin 5 (35 and 42 kDa variant), membrin, rsec22 and rbet1. Recently syntaxin 5 has been shown to be involved in the processing and accumulation of β-APP in neuronal cells.

### Selected References SYSY Antibodies

SNARE proteins mediate fusion between cytosolic lipid droplets and are implicated in insulin sensitivity. Boström P, Andersson L, Rutberg M, Perman J, Lidberg U, Johansson BR, Fernandez-Rodriguez J, Ericson J, Nilsson T, Borén J, Olofsson SO, et al. Nature cell biology (2007) 9(11): 1286-93. **WB, EM**

SMAP2 regulates retrograde transport from recycling endosomes to the Golgi. Matsudaira T, Uchida Y, Tanabe K, Kon S, Watanabe T, Taguchi T, Arai H PLoS one (2013) 8(7): e69145. **ICC; tested species: monkey**

Oxidized phagosomal NOX2 complex is replenished from lysosomes. Dingjan I, Linders PT, van den Bekerom L, Baranov MV, Halder P, Ter Beest M, van den Bogaart G Journal of cell science (2017) 130(7): 1285-1298. **ICC; tested species: human**

Chemical Modulation of Endocytic Sorting Augments Adeno-associated Viral Transduction. Berry GE, Asokan A The Journal of biological chemistry (2016) 291(2): 939-47. **ICC**

SNARE protein expression and localization in human cytotoxic T lymphocytes. Pattu V, Qu B, Schwarz EC, Strauss B, Weins L, Bhat SS, Halimani M, Marshall M, Rettig J, Hoth M European journal of immunology (2012) 42(2): 470-5. **ICC**

Impaired retrograde membrane traffic through endosomes in a mutant CHO cell defective in phosphatidylserine synthesis. Lee S, Uchida Y, Emoto K, Umeda M, Kuge O, Taguchi T, Arai H Genes to cells : devoted to molecular & cellular mechanisms (2012) 17(8): 728-36. **ICC**

Interaction of calcium-dependent activator protein for secretion 1 (CAPS1) with the class II ADP-ribosylation factor small GTPases is required for dense-core vesicle trafficking in the trans-Golgi network. Sadakata T, Shinoda Y, Sekine Y, Saruta C, Itakura M, Takahashi M, Furuichi T The Journal of biological chemistry (2010) 285(49): 38710-9. **WB**

Storage vesicles in neurons are related to Golgi complex alterations in mucopolysaccharidosis IIIB. Vitry S, Bruyère J, Hocquemiller M, Bigou S, Ausseil J, Colle MA, Prévost MC, Heard JM The American journal of pathology (2010) 177(6): 2984-99. **ICC; tested species: mouse**

Three homologous ArfGAPs participate in coat protein I-mediated transport. Saitoh A, Shin HW, Yamada A, Waguri S, Nakayama K The Journal of biological chemistry (2009) 284(20): 13948-57. **ICC**

### Selected General References

Syntaxin 5 interacts specifically with presenilin holoproteins and affects processing of betaAPP in neuronal cells. Suga K, Saito A, Tomiyama T, Mori H, Akagawa K Journal of neurochemistry (2005) 94(2): 425-39.

Participation of the syntaxin 5/Ykt6/GS28/GS15 SNARE complex in transport from the early/recycling endosome to the trans-Golgi network. Tai G, Lu L, Wang TL, Tang BL, Goud B, Johannes L, Hong W Molecular biology of the cell (2004) 15(9): 4011-22.

rsly1 binding to syntaxin 5 is required for endoplasmic reticulum-to-Golgi transport but does not promote SNARE motif accessibility. Williams AL, Ehm S, Jacobson NC, Xu D, Hay JC Molecular biology of the cell (2004) 15(1): 162-75.

GS15 forms a SNARE complex with syntaxin 5, GS28, and Ykt6 and is implicated in traffic in the early cisternae of the Golgi apparatus. Xu Y, Martin S, James DE, Hong W Molecular biology of the cell (2002) 13(10): 3493-507.

Ykt6 forms a SNARE complex with syntaxin 5, GS28, and Bet1 and participates in a late stage in endoplasmic reticulum-Golgi transport. Zhang T, Hong W The Journal of biological chemistry (2001) 276(29): 27480-7.

Syntaxin 5 is a common component of the NSF- and p97-mediated reassembly pathways of Golgi cisternae from mitotic Golgi fragments in vitro. Rabouille C, Kondo H, Newman R, Hui N, Freemont P, Warren G Cell (1998) 92(5): 603-10.

Role of vesicle-associated syntaxin 5 in the assembly of pre-Golgi intermediates. Rowe T, Dascher C, Bannykh S, Plutner H, Balch WE Science (New York, N.Y.) (1998) 279(5351): 696-700.