

Syntaxin 12/13

Cat.No. 110 132; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl antiserum, lyophilized. For reconstitution add 200 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 100 up to 1 : 1000 (AP staining) IP: yes ICC: 1 : 100 up to 1 : 500 IHC: 1 : 500 IHC-P/FFPE: 1 : 500
Immunogen	Recombinant protein corresponding to AA 1 to 250 from rat Syntaxin12/13 (UniProt Id: G3V7P1)
Reactivity	Reacts with: human (Q86Y82), rat (G3V7P1), mouse (Q9ER00), hamster, chicken. Other species not tested yet.
Specificity	Specific for syntaxin 12/13. (K.D. verified)
matching control	110-13P

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

Syntaxin 12/13 are orthologues of the same gene whose product is a member of the SNARE family of proteins. It is related to syntaxins 1-4 but is localized predominantly to early endosomes of a wide variety of cells. Syntaxin 12/13 appears to be involved in the recycling of membrane receptors such as the transferrin receptors where it mediates the fusion of endosomal membranes.

Selected References SYSY Antibodies

Association of ABCA1 with syntaxin 13 and flotillin-1 and enhanced phagocytosis in tangier cells. Bared SM, Buechler C, Boettcher A, Dayoub R, Sigrüener A, Grandl M, Rudolph C, Dada A, Schmitz G. *Molecular biology of the cell* (2004) 15(12): 5399-407. **WB, ICC**

Composition of isolated synaptic boutons reveals the amounts of vesicle trafficking proteins. Wilhelm BG, Mandad S, Truckenbrodt S, Kröhnert K, Schäfer C, Rammner B, Koo SJ, Claßen GA, Krauss M, Haucke V, Urlaub H, et al. *Science* (New York, N.Y.) (2014) 344(6187): 1023-8. **WB, IHC; tested species: mouse, rat**

Salmonella SipA mimics a cognate SNARE for host Syntaxin8 to promote fusion with early endosomes. Singh PK, Kapoor A, Lomash RM, Kumar K, Kamerkar SC, Pucadyil TJ, Mukhopadhyay A. *The Journal of cell biology* (2018) : . **WB, ICC; tested species: human**

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. **WB, ICC; KD verified; tested species: human**

Calsyntenin-1 shelters APP from proteolytic processing during anterograde axonal transport. Steuble M, Diep TM, Schätzle P, Ludwig A, Tagaya M, Kunz B, Sonderegger P. *Biology open* (2012) 1(8): 761-74. **WB, ICC**

GRASP1 Regulates Synaptic Plasticity and Learning through Endosomal Recycling of AMPA Receptors. Chiu SL, Diering GH, Ye B, Takamiya K, Chen CM, Jiang Y, Niranjana T, Schwartz CE, Wang T, Huganir RL. *Neuron* (2017) 93(6): 1405-1419.e8. **IP; tested species: rat**

Multispectral imaging reveals the tissue distribution of tetraspanins in human lymphoid organs. de Winde CM, Zuidschewoude M, Vasaturo A, van der Schaaf A, Figdor CG, van Spriell AB. *Histochemistry and cell biology* (2015) 144(2): 133-46. **ICC**

Molecular anatomy of a trafficking organelle. Takamori S, Holt M, Stenius K, Lemke EA, Grønberg M, Riedel D, Urlaub H, Schenck S, Brügger B, Ringler P, Müller SA, et al. *Cell* (2006) 127(4): 831-46. **WB**

Phosphorylation of synapsin I by cAMP-dependent protein kinase controls synaptic vesicle dynamics in developing neurons. Bonanomi D, Menegon A, Miccio A, Ferrari G, Corradi A, Kao HT, Benfenati F, Valtorta F. *The Journal of neuroscience : the official journal of the Society for Neuroscience* (2005) 25(32): 7299-308. **ICC**

Association of gamma-secretase with lipid rafts in post-Golgi and endosome membranes. Vetrivel KS, Cheng H, Lin W, Sakurai T, Li T, Nukina N, Wong PC, Xu H, Thinakaran G. *The Journal of biological chemistry* (2004) 279(43): 44945-54. **WB**

Rab3D is not required for exocrine exocytosis but for maintenance of normally sized secretory granules. Riedel D, Antonin W, Fernandez-Chacon R, Alvarez de Toledo G, Jo T, Geppert M, Valentijn JA, Valentijn K, Jamieson JD, Südhof TC, Jahn R, et al. *Molecular and cellular biology* (2002) 22(18): 6487-97. **WB**

Homotypic fusion of early endosomes: SNAREs do not determine fusion specificity. Brandhorst D, Zwilling D, Rizzoli SO, Lippert U, Lang T, Jahn R. *Proceedings of the National Academy of Sciences of the United States of America* (2006) 103(8): 2701-6.

Selected General References

A SNARE complex mediating fusion of late endosomes defines conserved properties of SNARE structure and function. Antonin W, Holroyd C, Fasshauer D, Pabst S, Von Mollard GF, Jahn R. *The EMBO journal* (2000) 19(23): 6453-64.

Membrane fusion and exocytosis. Jahn R, Südhof TC. *Annual review of biochemistry* (1999) 68: 863-911.

Seven novel mammalian SNARE proteins localize to distinct membrane compartments. Advani RJ, Bae HR, Bock JB, Chao DS, Doung YC, Prekeris R, Yoo JS, Scheller RH. *The Journal of biological chemistry* (1998) 273(17): 10317-24.

Syntaxin 13 mediates cycling of plasma membrane proteins via tubulovesicular recycling endosomes. Prekeris R, Klumperman J, Chen YA, Scheller RH. *The Journal of cell biology* (1998) 143(4): 957-71.