

Sec 22b

Cat.No. 186 003; 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 ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 up to 1 : 5000 (AP staining) IP: yes ICC: 1 : 100 up to 1 : 500 IHC: 1 : 100 IHC-P/FFPE: 1 : 200
Immunogen	Recombinant protein corresponding to AA 1 to 176 from rat Sec22b (UniProt Id: Q4KM74)
Reactivity	Reacts with: human (O75396), rat (Q4KM74), mouse (O08547), zebrafish. Other species not tested yet.
Specificity	Specific for sec 22b. (K.D. verified)

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

Distinct sets of SNARE proteins mediate membrane-membrane fusion events between different intracellular compartments. **Sec 22b** (ERS 24, rsec22b), a Sly2 homolog, is a R-SNARE and locates to the endoplasmatic reticulum (ER) and the Golgi apparatus. Together with syntaxin 5, membrin and Bet 1 it participates in traffic between the Golgi and the ER.

Selected References SYSY Antibodies

Sec22b regulates phagosomal maturation and antigen crosspresentation by dendritic cells. Cebrian I, Visentin G, Blanchard N, Jouve M, Bobard A, Moita C, Enninga J, Moita LF, Amigorena S, Savina A Cell (2011) 147(6): 1355-68. **WB, ICC; tested species: mouse**

Autophagy induction via STING trafficking is a primordial function of the cGAS pathway. Gui X, Yang H, Li T, Tan X, Shi P, Li M, Du F, Chen ZJ Nature (2019) : **WB; tested species: human**

Identification of a Botulinum Neurotoxin-like Toxin in a Commensal Strain of Enterococcus faecium. Zhang S, Lebreton F, Mansfield MJ, Miyashita SI, Zhang J, Schwartzman JA, Tao L, Masuyer G, Martínez-Carranza M, Stenmark P, Gilmore MS, et al. Cell host & microbe (2018) 23(2): 169-176.e6. **WB; tested species: mouse**

MHC I presentation of Toxoplasma gondii immunodominant antigen does not require Sec22b and is regulated by antigen orientation at the vacuole membrane. Buailon C, Guerrero NA, Cebrian I, Blanié S, Lopez J, Bassot E, Vasseur V, Santi-Rocca J, Blanchard N European journal of immunology (2017) 47(7): 1160-1170. **WB; KD verified; tested species: mouse**

Identification and characterization of a novel botulinum neurotoxin. Zhang S, Masuyer G, Zhang J, Shen Y, Lundin D, Henriksson L, Miyashita SI, Martínez-Carranza M, Dong M, Stenmark P Nature communications (2017) 8: 14130. **WB; tested species: mouse**

Highly potent intracellular membrane-associated Aβ seeds. Marzesco AM, Flötenmeyer M, Bühler A, Obermüller U, Staufenberg M, Jucker M, Baumann F Scientific reports (2016) 6: 28125. **WB**

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

Selected General References

Sec22 and Memb11 are v-SNAREs of the anterograde endoplasmic reticulum-Golgi pathway in tobacco leaf epidermal cells. Chatre L, Brandizzi F, Hocquellet A, Hawes C, Moreau P Plant physiology (2005) 139(3): 1244-54.

Identification of functionally interacting SNAREs by using complementary substitutions in the conserved '0' layer. Graf CT, Riedel D, Schmitt HD, Jahn R Molecular biology of the cell (2005) 16(5): 2263-74.

Sec22p export from the endoplasmic reticulum is independent of SNARE pairing. Liu Y, Flanagan JJ, Barlowe C The Journal of biological chemistry (2004) 279(26): 27225-32.

Countercurrent distribution of two distinct SNARE complexes mediating transport within the Golgi stack. Volchuk A, Ravazzola M, Perrelet A, Eng WS, Di Liberto M, Varlamov O, Fukasawa M, Engel T, Söllner TH, Rothman JE, Orci L, et al. Molecular biology of the cell (2004) 15(4): 1506-18.

A SNARE required for retrograde transport to the endoplasmic reticulum. Burri L, Varlamov O, Doege CA, Hofmann K, Beilharz T, Rothman JE, Söllner TH, Lithgow T Proceedings of the National Academy of Sciences of the United States of America (2003) 100(17): 9873-7.

A novel snare N-terminal domain revealed by the crystal structure of Sec22b. Gonzalez LC, Weis WI, Scheller RH The Journal of biological chemistry (2001) 276(26): 24203-11.

Localization, dynamics, and protein interactions reveal distinct roles for ER and Golgi SNAREs. Hay JC, Klumperman J, Oorschot V, Steegmaier M, Kuo CS, Scheller RH The Journal of cell biology (1998) 141(7): 1489-502.

BET1, BOS1, and SEC22 are members of a group of interacting yeast genes required for transport from the endoplasmic reticulum to the Golgi complex. Newman AP, Shim J, Ferro-Novick S Molecular and cellular biology (1990) 10(7): 3405-14.