

SNX17 (E8F8Y) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	55	Rabbit IgG	#Q15036	9784

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SNX17 (E8F8Y) Rabbit mAb recognizes endogenous levels of total SNX17 protein. Non-specific bands may be detected above 120 kDa in some cases.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn54 of human SNX17 protein.

Background

Sorting nexins (SNXs) are a family of cytoplasmic proteins characterized by the presence of a phosphatidylinositol 3-phosphate (PI3P) binding phox (PX) domain. This binding occurs mainly in the early endosome and allows for trafficking of the bound protein to either a degradative or recycling pathway (1).

Sorting nexin-17, or SNX17, has been shown to preferentially drive trafficking of integrins, receptors, and a variety of other proteins away from degradative pathways (1). In addition to PX domain interactions, SNX17 also binds the NPxY motif on the cytoplasmic tails of lipoprotein receptors via its FERM domain (protein 4.1, ezrin, radixin and moesin). Some of these proteins include the low density lipoprotein receptor-related protein 1 (LRP1) and apolipoprotein E receptor 2 (ApoER2) (3,4). LRP1 is known to bind APP, regulating its processing and causing an increase in Aβ production, a known risk factor for AD. By binding APP in addition to LRP1, SNX17 recycles both proteins to the plasma membrane, maintaining normal cell surface levels of each (3). SNX17 acts similarly with ApoER2, facilitating trafficking and increasing recycling to the plasma membrane. This assists in regulating the binding of ApoER2 and reelin, an interaction that is known to be important for neuronal migration and the formation of brain structures in early development, as well as synaptic function, learning, and memory in the adult brain (4). Through these and other interactions, SNX17 has been shown to have a potential role in a wide variety of neuronal pathways and diseases.

Background References

1. Steinberg, F. et al. (2012) *J Cell Biol* 197, 219-30.
2. Sotelo, P. et al. (2014) *PLoS One* 9, e93672.
3. Lee, J. et al. (2008) *J Biol Chem* 283, 11501-8.
4. Kalpaxis, D.L. and Giannoulaki, E.E. (1989) *Clin Chem* 35, 844-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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