Revision 1

Store at -20C

#75885

# SNX17 (E8F8Y) Rabbit mAb

Cell Signaling TECHNOLOGY®

**Orders:** 877-616-CELL (2355)
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

| 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 | Dilution |
|---|---|
| Western Blotting | 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

## Trademarks and Patents



## Limited Uses

terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.