

Store at -20°C
#28630

Phospho-Syntaxin 17 (Ser202) Antibody



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Transfected Only	40-42	Rabbit	#P56962	55014

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 and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Phospho-Syntaxin 17 (Ser202) Antibody recognizes transfected levels of syntaxin 17 protein only when phosphorylated at Ser202.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phospho-peptide corresponding to residues surrounding Ser202 of human syntaxin 17 protein. Antibodies were purified by peptide affinity chromatography.

Background

Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents (1,2). Autophagy is generally activated by conditions of nutrient deprivation but has also been associated with a number of physiological processes, including development, differentiation, neurodegeneration, infection, and cancer (3). Syntaxin 17/STX17 is a SNARE factor recruited to autophagosomes and required for autophagosome fusion to lysosomes. Syntaxin 17 interacts with SNAP29 (Qbc-SNARE synaptosome-associated protein 29) and the lysosomal factor VAMP8 (R-SNARE vesicle-associated membrane protein 8), as well as BRUCE, an inhibitor of apoptosis (IAP) protein, which is also involved in autophagosome/lysosome fusion (4,5). Syntaxin 17 promotes initiation of PINK1/Parkin-independent mitophagy, which is regulated by depletion of the mitochondrial outer membrane protein Fis1 (6).

Phosphorylation of Syntaxin 17 at Ser202 by TBK1 promotes the formation of the mammalian pre-autophagosomal structure (mPAS) and interaction with core components Atg13 and FIP200.

Background References

1. Reggiori, F. and Klionsky, D.J. (2002) *Eukaryot Cell* 1, 11-21.
2. Codogno, P. and Meijer, A.J. (2005) *Cell Death Differ* 12 Suppl 2, 1509-18.
3. Levine, B. and Yuan, J. (2005) *J Clin Invest* 115, 2679-88.
4. Viret, C. and Faure, M. (2019) *Trends Cell Biol* 29, 1-3.
5. Corona, A.K. and Jackson, W.T. (2018) *Trends Cell Biol* 28, 869-81.
6. Xian, H. et al. (2019) *Nat Commun* 10, 2059.
7. Kumar, S. et al. (2019) *Dev Cell* 49, 130-144.e6.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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