

Syntaxin 5 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 M R	Endogenous	35, 42	Rabbit	#Q13190	6811

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

Syntaxin 5 Antibody recognizes endogenous levels of total syntaxin 5 protein. This antibody also cross-reacts with an unidentified protein of 120 kDa.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly165 of human syntaxin 5 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The membrane protein syntaxin 5 (STX5) is a key component of soluble N-ethylmaleimide-sensitive factor attachment protein (SNAP) receptor (SNARE) complexes that regulate cellular protein transport, vesicle docking, and membrane fusion (1). Syntaxin 5 protein is found as a 42 kDa ("long") protein localized to the Golgi complex and endoplasmic reticulum, and a "short" 35 kDa isoform localized primarily to the Golgi (2,3). Formation of the syntaxin 5 SNARE complex, which also includes proteins Sec22B, Bet1, GOSR1, GOSR2, and Ykt6, allows for regulation of ER-to-Golgi transport, intra-Golgi transport, and endosome-to-Golgi retrograde transport (4-6). Research studies indicate that the syntaxin 5 SNARE complex also plays an essential role in autophagy following autophagosome formation. Intracellular protein transport mediated by the syntaxin 5 complex is required for transport and localized activity of lysosomal proteases. The experimental reduction or deletion of syntaxin 5 complex components results in non-functional lysosomes and accumulation of autophagosomes (7).

Background References

- Hong, W. (2005) *Biochim Biophys Acta* 1744, 120-44.
- Volchuk, A. et al. (2004) *Mol Biol Cell* 15, 1506-18.
- Miyazaki, K. et al. (2012) *J Cell Sci* 125, 5658-66.
- Tai, G. et al. (2004) *Mol Biol Cell* 15, 4011-22.
- Xu, Y. et al. (2002) *Mol Biol Cell* 13, 3493-507.
- Zhang, T. and Hong, W. (2001) *J Biol Chem* 276, 27480-7.
- Renna, M. et al. (2011) *J Cell Sci* 124, 469-82.

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 **M:** Mouse **R:** Rat

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