

#14151 Store at -20°C

Syntaxin 5 Antibody



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	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. <i>Do not aliquot the antibody.</i>	
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	<ol style="list-style-type: none"> 1. Hong, W. (2005) <i>Biochim Biophys Acta</i> 1744, 120-44. 2. Volchuk, A. et al. (2004) <i>Mol Biol Cell</i> 15, 1506-18. 3. Miyazaki, K. et al. (2012) <i>J Cell Sci</i> 125, 5658-66. 4. Tai, G. et al. (2004) <i>Mol Biol Cell</i> 15, 4011-22. 5. Xu, Y. et al. (2002) <i>Mol Biol Cell</i> 13, 3493-507. 6. Zhang, T. and Hong, W. (2001) <i>J Biol Chem</i> 276, 27480-7. 7. Renna, M. et al. (2011) <i>J Cell Sci</i> 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	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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