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GABARAPL2 (D1W9T) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	14	Rabbit IgG	#P60520	11345

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	GABARAPL2 (D1W9T) Rabbit mAb recognizes endogenous levels of total GABARAPL2 protein. Bands of unknown origin are detected at 80 and 110 kDa in some cell lines. This antibody has a preference for the Type I form of GABARAPL2.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human GABARAPL2 protein.	
Background	<p>GABA_A receptor associated protein (GABARAP) is an Atg8 family protein with a key role in autophagy, which was originally discovered as a protein associated with the GABA_A receptor regulating receptor trafficking to the plasma membrane (1). Proteins in this family, including microtubule-associated protein light chain 3 (LC3) and GATE-16 (GABARAPL2), become incorporated into the autophagosomal membranes following autophagic stimuli such as starvation (2). Like the other family members, GABARAP is cleaved at its carboxyl terminus, which leads to conjugation by either of the phospholipids phosphatidylethanolamine or phosphatidylserine (3,4). This processing converts GABARAP from a type I to a type II membrane bound form involved in autophagosome biogenesis. Processing of GABARAP involves cleavage by Atg4 family members (5,6) followed by conjugation by the E1 and E2 like enzymes Atg7 and Atg3 (7,8). GABARAPL1/GEC1, a protein that is highly related to GABARAP, was identified as an estrogen inducible gene, and is also associated with autophagosomes (9-11). GABARAPL2/GATE-16 was identified as a modulator of membrane transport, interacting with N-ethylmaleimide sensitive factor (NSF) and the Golgi v-SNARE GOS-28 (12). In addition, GABARAPL2 interacts with OSBP-related protein 7 (ORP7), the GTPase GIMAP6, and the calcium channel TRPML3. (13-15)</p>	
Background References	<ol style="list-style-type: none"> 1. Wang, H. et al. (1999) <i>Nature</i> 397, 69-72. 2. Shpilka, T. et al. (2011) <i>Genome Biol</i> 12, 226. 3. Kabeya, Y. et al. (2004) <i>J Cell Sci</i> 117, 2805-12. 4. Sou, Y.S. et al. (2006) <i>J Biol Chem</i> 281, 3017-24. 5. Tanida, I. et al. (2004) <i>J Biol Chem</i> 279, 36268-76. 6. Hemelaar, J. et al. (2003) <i>J Biol Chem</i> 278, 51841-50. 7. Tanida, I. et al. (2001) <i>J Biol Chem</i> 276, 1701-6. 8. Tanida, I. et al. (2002) <i>J Biol Chem</i> 277, 13739-44. 9. Chakraborty, F.Z. et al. (2010) <i>Autophagy</i> 6, 495-505. 10. Pellerin, I. et al. (1993) <i>Mol Cell Endocrinol</i> 90, R17-21. 11. Vernier-Magnin, S. et al. (2001) <i>Biochem Biophys Res Commun</i> 284, 118-25. 12. Sagiv, Y. et al. (2000) <i>EMBO J</i> 19, 1494-504. 13. Zhong, W. et al. (2011) <i>Exp Cell Res</i> 317, 2353-63. 14. Pascall, J.C. et al. (2013) <i>PLoS One</i> 8, e77782. 15. Choi, S. and Kim, H.J. (2014) <i>Biochem Biophys Res Commun</i> 443, 56-61. 	

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**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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