

#2630 Store at -20C

Atg5 Antibody


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H Mk	Endogenous	55	Rabbit	#Q9H1Y0	9474

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
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	Atg5 Antibody detects endogenous levels of total Atg5. The observed band represents the Atg12-Atg5 conjugated form, but the antibody likely reacts with free Atg5 as well.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy-terminus of Atg5. 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). The molecular machinery of autophagy was largely discovered in yeast and referred to as autophagy-related (Atg) genes. Formation of the autophagosome involves a ubiquitin-like conjugation system in which Atg12 is covalently bound to Atg5 and targeted to autophagosome vesicles (4-6). This conjugation reaction is mediated by the ubiquitin E1-like enzyme Atg7 and the E2-like enzyme Atg10 (7,8).	
Background References	1. Reggiori, F. and Klionsky, D.J. (2002) <i>Eukaryot Cell</i> 1, 11-21. 2. Codogno, P. and Meijer, A.J. (2005) <i>Cell Death Differ</i> 12 Suppl 2, 1509-18. 3. Levine, B. and Yuan, J. (2005) <i>J Clin Invest</i> 115, 2679-88. 4. Mizushima, N. et al. (1998) <i>J Biol Chem</i> 273, 33889-92. 5. Mizushima, N. et al. (1998) <i>Nature</i> 395, 395-8. 6. Suzuki, K. et al. (2001) <i>EMBO J</i> 20, 5971-81. 7. Tanida, I. et al. (1999) <i>Mol Biol Cell</i> 10, 1367-79. 8. Shintani, T. et al. (1999) <i>EMBO J</i> 18, 5234-41.	

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 IP: Immunoprecipitation
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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