

#5320 Store at -20°C

UVRAG Antibody



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Applications: WB, IP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 90	Source: Rabbit	UniProt ID: #Q9P2Y5	Entrez-Gene Id: 7405
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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	UVRAG Antibody detects endogenous levels of total UVRAG protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to a region surrounding Leu555 of human UVRAG. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents (1,2). It 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. These proteins are involved in the formation of cytoplasmic vacuoles called autophagosomes that are delivered to lysosomes for degradation. The class III type phosphoinositide 3-kinase (PI3KC3)/Vps34 regulates vacuolar trafficking as well as autophagy (4,5). Multiple proteins have been shown to be associated with Vsp34, including: p105/Vsp15, Beclin-1, UVRAG, Atg14, and Rubicon, which can determine Vsp34 function (6-11). UVRAG (UV radiation resistance-associated gene) is associated with the Beclin-1/PI3KC3 complex and promotes PI3KC3 enzymatic activity and autophagy, while suppressing proliferation (11). Beclin-1 binding to UVRAG promotes both autophagosome maturation and endocytic trafficking (6). UVRAG is also a potential tumor suppressor protein with frameshift mutations observed in colon and gastric carcinomas (12,13).	
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. Corvera, S. (2001) <i>Traffic</i> 2, 859-66. 5. Stack, J.H. et al. (1995) <i>J Cell Biol</i> 129, 321-34. 6. Liang, C. et al. (2008) <i>Nat Cell Biol</i> 10, 776-87. 7. Matsunaga, K. et al. (2009) <i>Nat Cell Biol</i> 11, 385-96. 8. Zhong, Y. et al. (2009) <i>Nat Cell Biol</i> 11, 468-76. 9. Sun, Q. et al. (2008) <i>Proc Natl Acad Sci U S A</i> 105, 19211-6. 10. Itakura, E. et al. (2008) <i>Mol Biol Cell</i> 19, 5360-72. 11. Liang, C. et al. (2006) <i>Nat Cell Biol</i> 8, 688-99. 12. Ionov, Y. et al. (2004) <i>Oncogene</i> 23, 639-45. 13. Kim, M.S. et al. (2008) <i>Hum Pathol</i> 39, 1059-63.	

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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