

#13115 Store at -20C

UVRAG (D2Q1Z) Rabbit mAb



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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:
WB, IP	H M	Endogenous	90	Rabbit IgG	#Q9P2Y5	7405

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

UVRAG (D2Q1Z) Rabbit mAb recognizes endogenous levels of total UVRAG protein.

Species predicted to react based on 100% sequence homology:

Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly502 of human UVRAG protein.

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 Vps34, 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

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2. Codogno, P. and Meijer, A.J. (2005) *Cell Death Differ* 12 Suppl 2, 1509-18.
3. Levine, B. and Yuan, J. (2005) *J Clin Invest* 115, 2679-88.
4. Corvera, S. (2001) *Traffic* 2, 859-66.
5. Stack, J.H. et al. (1995) *J Cell Biol* 129, 321-34.
6. Liang, C. et al. (2008) *Nat Cell Biol* 10, 776-87.
7. Matsunaga, K. et al. (2009) *Nat Cell Biol* 11, 385-96.
8. Zhong, Y. et al. (2009) *Nat Cell Biol* 11, 468-76.
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10. Itakura, E. et al. (2008) *Mol Biol Cell* 19, 5360-72.
11. Liang, C. et al. (2006) *Nat Cell Biol* 8, 688-99.
12. Ionov, Y. et al. (2004) *Oncogene* 23, 639-45.
13. Kim, M.S. et al. (2008) *Hum Pathol* 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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