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UVRAG Antibody (C-term L555)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1850e

Product Information

Application	WB, E
Primary Accession	Q9P2Y5
Reactivity	Human
Predicted	Mouse, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	78151
Antigen Region	540-569

Additional Information

Gene ID	7405
Other Names	UV radiation resistance-associated gene protein, p63, UVRAG
Target/Specificity	This UVRAG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 540-569 amino acids from the C-terminal region of human UVRAG.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	UVRAG Antibody (C-term L555) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UVRAG
Function	Versatile protein that is involved in regulation of different cellular pathways implicated in membrane trafficking. Involved in regulation of the COPI-dependent retrograde transport from Golgi and the endoplasmic reticulum by associating with the NRZ complex; the function is dependent on its binding to phosphatidylinositol 3- phosphate (PtdIns(3)P)

	(PubMed:16799551, PubMed:18552835, PubMed:20643123, PubMed:24056303, PubMed:28306502). During autophagy acts as a regulatory subunit of the alternative PI3K complex II (PI3KC3-C2) that mediates formation of phosphatidylinositol 3-phosphate and is believed to be involved in maturation of autophagosomes and endocytosis. Activates lipid kinase activity of PIK3C3 (PubMed:16799551, PubMed:20643123, PubMed:24056303, PubMed:28306502). Involved in the regulation of degradative endocytic trafficking and cytokinesis, and in regulation of ATG9A transport from the Golgi to the autophagosome; the functions seems to implicate its association with PI3KC3-C2 (PubMed:16799551, PubMed:20643123, PubMed:24056303). Involved in maturation of autophagosomes and degradative endocytic trafficking independently of BECN1 but depending on its association with a class C Vps complex (possibly the HOPS complex); the association is also proposed to promote autophagosome recruitment and activation of Rab7 and endosome-endosome fusion events (PubMed:18552835, PubMed:28306502). Enhances class C Vps complex (possibly HOPS complex) association with a SNARE complex and promotes fusogenic SNARE complex formation during late endocytic membrane fusion (PubMed:24550300). In case of negative-strand RNA virus infection is required for efficient virus entry, promotes endocytic transport of virions and is implicated in a VAMP8- specific fusogenic SNARE complex assembly (PubMed:24550300).
Cellular Location	Late endosome. Lysosome. Cytoplasmic vesicle, autophagosome. Early endosome. Endoplasmic reticulum. Midbody. Chromosome, centromere. Note=Colocalizes with RAB9-positive compartments involved in retrograde transport from late endosomes to trans-Golgi network. Colocalization with early endosomes is only partial (PubMed:24056303). Recruited to autophagosome following interaction with RUBCNL/PACER (PubMed:28306502)
Tissue Location	Highly expressed in brain, lung, kidney and liver.

Background

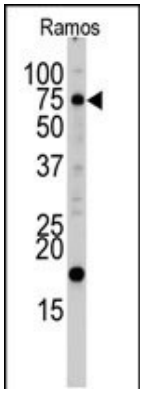
UVRAG complements the ultraviolet sensitivity of xeroderma pigmentosum group C cells and encodes a protein with a C2 domain. The protein activates the Beclin1-PI(3)KC3 complex, promoting autophagy and suppressing the proliferation and tumorigenicity of human colon cancer cells. Chromosomal aberrations involving the UVAG gene are associated with left-right axis malformation and mutations in the gene have been associated with colon cancer.

References

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Goi,T., et al. Surg. Today 33 (9), 702-706 (2003)
Iida,A., et al. Hum. Genet. 106 (3), 277-287 (2000)
Perelman,B., et al. Genomics 41 (3), 397-405 (1997)
Bekri,S., et al. Cytogenet. Cell Genet. 79 (1-2), 125-131 (1997)
Teitz,T., et al. Gene 87 (2), 295-298 (1990)

Images

Western blot analysis of UVRAG Antibody (C-term L555) (Cat.#AP1850e) in Ramos cell line lysates (35ug/lane). UVRAG (arrow) was detected using the purified Pab.



Citations

- RalB and the exocyst mediate the cellular starvation response by direct activation of autophagosome assembly.
- Autophagic induction of amyotrophic lateral sclerosis-linked Cu/Zn superoxide dismutase 1 G93A mutant in NSC34 cells.

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