

### **UVRAG Antibody (Center)**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1850c

### Specification

# **UVRAG Antibody (Center) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<u>O9P2Y5</u>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	78151
Antigen Region	366-398

## **UVRAG Antibody (Center) - 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 366-398 amino acids from the Central region of human UVRAG.

Dilution IHC-P~~1:10~50 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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

# UVRAG Antibody (Center) - 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:<u>18552835</u>, PubMed:<u>20643123</u>, PubMed:<u>24056303</u>, PubMed:<u>28306502</u>). 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.

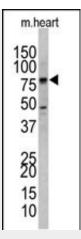
### UVRAG Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

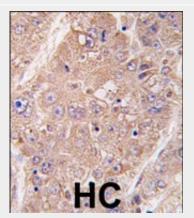
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### UVRAG Antibody (Center) - Images





Western blot analysis of anti-hUVRAG (Center) Pab (RB10847) in mouse heart tissue lysates. hUVRAG (Center)(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with hUVRAG (Center) (Cat.#AP1850c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

# UVRAG Antibody (Center) - 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 this gene are associated with left-right axis malformation and mutations in this gene have been associated with colon cancer.

## UVRAG Antibody (Center) - References

Liang,C., et al. Nat. Cell Biol. 8 (7), 688-699 (2006) lonov,Y., et al. Oncogene 23 (3), 639-645 (2004) Goi,T., et al. Surg. Today 33 (9), 702-706 (2003) lida,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)