

Anti-UVRAG antibody ab223345

3 Images

Overview

Product name	Anti-UVRAG antibody
Description	Rabbit polyclonal to UVRAG
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Rat, Human
Immunogen	Synthetic peptide corresponding to Human UVRAG (internal sequence). Database link: Q9P2Y5
Positive control	ICC/IF: SK-N-BE cells. WB: 293T and HeLa whole cell lysate (ab150035); Rat liver lysate.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab223345 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100.
WB		1/1000. Predicted molecular weight: 78 kDa.

Target

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:24056303). During autophagy acts as 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 PI3KC3. 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). 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). Involved in maintaining chromosomal stability. Promotes DNA double-strand break (DSB) repair by association with DNA-dependent protein kinase complex DNA-PK and activating it in non-homologous end joining (NHEJ) (PubMed:22542840). Required for centrosome stability and proper chromosome segregation (PubMed:22542840).

Tissue specificity

Highly expressed in brain, lung, kidney and liver.

Involvement in disease

A chromosomal aberration involving UVRAG has been observed in a patient with heterotaxy (left-right axis malformation). Inversion Inv(11)(q13.5;q25).

Sequence similarities

Contains 1 C2 domain.

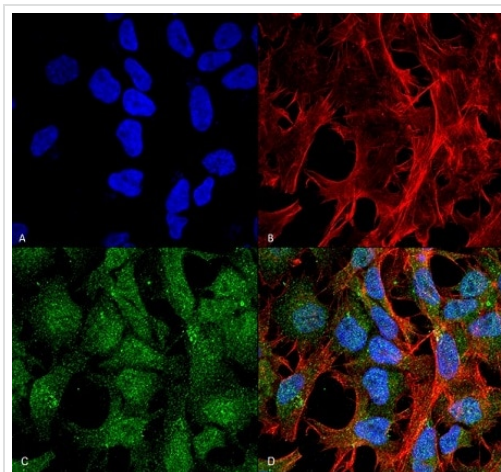
Post-translational modifications

Phosphorylated at Ser-498 by MTOR under basal conditions; increases the interaction with RUBCN implicated in inhibitory effect of RUBCN on PI3KC3 and decreases interaction with RAB7,A and VPS16 and VPS39 (indicative for a class C Vps complex, possibly the HOPS complex) (PubMed:25533187).

Cellular localization

Late endosome. Lysosome. Early endosome. Endoplasmic reticulum. Midbody. Chromosome, centromere. Colocalizes with RAB9-positive compartments involved in retrograde transport from late endosomes to trans-Golgi network. Colocalization with early endosomes is only partial.

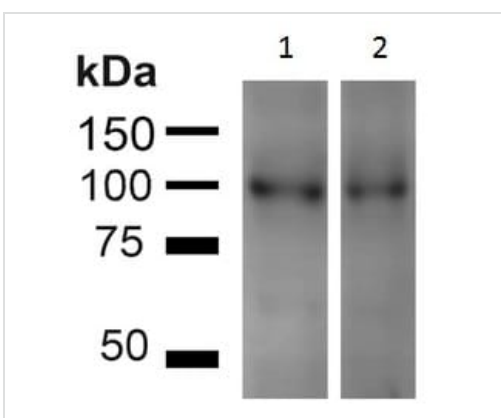
Images



Immunocytochemistry/ Immunofluorescence - Anti-UVRAG antibody (ab223345)

4% formaldehyde-fixed SK-N-BE cells stained for UVRAG (green) using ab223345 at 1/100 dilution in ICC/IF. Secondary: Goat Anti-Rabbit ATTO 488 at 1/100 for 60 minutes at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1/1000, 1/5000 for 60 minutes RT, 5 minutes RT.

(A) DAPI nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) ab223345 (D) Merge.



Western blot - Anti-UVRAG antibody (ab223345)

All lanes : Anti-UVRAG antibody (ab223345) at 1/200 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Lane 2 : 293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

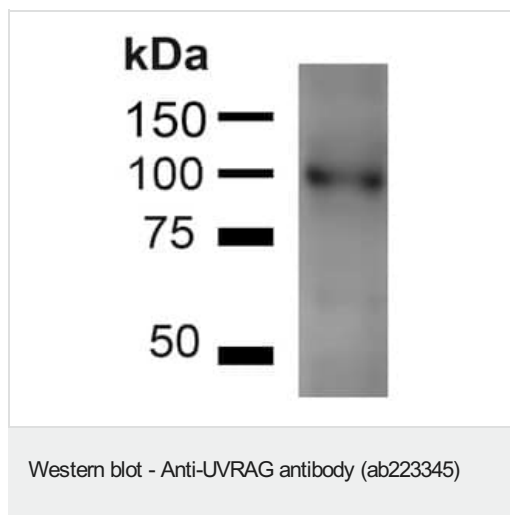
All lanes : Goat Anti-Rabbit IgG: HRP at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 78 kDa

Exposure time: 6 minutes

Blocking: 5% skimmed milk for 1 hour at RT



Anti-UVRAG antibody (ab223345) at 1/200 dilution + Rat liver lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG: HRP at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 78 kDa

Exposure time: 6 minutes

Blocking: 5% skimmed milk for 1 hour at RT.

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