


## Product datasheet

# Anti-UVRAG antibody ab70807

### 3 References

#### Overview

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|----------------------------|---|
| <b>Product name</b>        | Anti-UVRAG antibody   |
| <b>Description</b>         | Rabbit polyclonal to UVRAG  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB   |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Human<br><b>Predicted to work with:</b> Rat, Horse, Chicken, Cow, Dog, Xenopus laevis, Chimpanzee, Rhesus monkey  |
| <b>Immunogen</b>           | Synthetic peptide:<br>CDEQVLGEFEEFSR<br>conjugated to KLH, corresponding to amino acids 665-678 of Human UVRAG<br><a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>   |
| <b>Positive control</b>    | Whole extracts of mouse brain. Human HeLa cells.  |

#### Properties

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|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. |
| <b>Storage buffer</b>       | Preservative: 15mM Sodium Azide<br>Constituents: 0.01M PBS, pH 7.4                                      |
| <b>Purity</b>               | Immunogen affinity purified   |
| <b>Clonality</b>            | Polyclonal  |
| <b>Isotype</b>              | IgG   |

#### Applications

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Our [Abpromise guarantee](#) covers the use of **ab70807** 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 |
|---|---|-------|
| WB                                      |   |       |
| <b>Application notes</b>                | <p>WB: Use at a concentration of 2 - 4 µg/ml. Predicted molecular weight: 78 kDa.</p> <p>Note: Detection of the UVRAG band by immunoblotting is specifically inhibited by the immunizing peptide.</p> <p>Not yet tested in other applications.</p> <p>Optimal dilutions/concentrations should be determined by the end user.</p>  |       |
| <b>Target</b>                           |   |       |
| <b>Function</b>                         | <p>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 PIK3C3. 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).</p> <p>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).</p> |       |
| <b>Tissue specificity</b>               | Highly expressed in brain, lung, kidney and liver.  |       |
| <b>Involvement in disease</b>           | A chromosomal aberration involving UVRAG has been observed in a patient with heterotaxy (left-right axis malformation). Inversion Inv(11)(q13.5;q25).   |       |
| <b>Sequence similarities</b>            | Contains 1 C2 domain.   |       |
| <b>Post-translational modifications</b> | 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).  |       |
| <b>Cellular localization</b>            | 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.  |       |

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