

**UBE2V1 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP2157a****Specification**

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**UBE2V1 Antibody (N-term) Blocking Peptide - Product Information**

Primary Accession [O13404](#)  
Other Accession [O9GZW1](#)

**UBE2V1 Antibody (N-term) Blocking Peptide - Additional Information**

**Gene ID** 7335

**Other Names**

Ubiquitin-conjugating enzyme E2 variant 1, UEV-1, CROC-1, TRAF6-regulated IKK activator 1 beta  
Uev1A, UBE2V1, CROC1, UBE2V, UEV1

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP2157a](/product/products/AP2157a) was selected from the N-term region of human UBE2V1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**UBE2V1 Antibody (N-term) Blocking Peptide - Protein Information**

**Name** UBE2V1

**Synonyms** CROC1, UBE2V, UEV1

**Function**

Has no ubiquitin ligase activity on its own. The UBE2V1-UBE2N heterodimer catalyzes the synthesis of non-canonical poly-ubiquitin chains that are linked through Lys-63. This type of poly-ubiquitination activates IKK and does not seem to involve protein degradation by the proteasome. Plays a role in the activation of NF-kappa-B mediated by IL1B, TNF, TRAF6 and TRAF2. Mediates transcriptional activation of target genes. Plays a role in the control of progress through the cell cycle and differentiation. Plays a role in the error-free DNA repair pathway and contributes to the survival of cells after DNA damage. Promotes TRIM5 capsid-specific restriction activity and the UBE2V1- UBE2N heterodimer acts in concert with TRIM5 to generate 'Lys-63'- linked

polyubiquitin chains which activate the MAP3K7/TAK1 complex which in turn results in the induction and expression of NF-kappa-B and MAPK-responsive inflammatory genes. Together with RNF135 and UBE2N, catalyzes the viral RNA-dependent 'Lys-63'-linked polyubiquitination of RIGI to activate the downstream signaling pathway that leads to interferon beta production (PubMed:<a href="http://www.uniprot.org/citations/31006531" target="\_blank">31006531</a>). UBE2V1-UBE2N together with TRAF3IP2 E3 ubiquitin ligase mediate 'Lys-63'-linked polyubiquitination of TRAF6, a component of IL17A-mediated signaling pathway.

**Cellular Location**

Nucleus. Note=Excluded from the nucleolus

**Tissue Location**

Highly expressed in thyroid, pancreas, spinal cord, lymph node, trachea, adrenal gland, bone marrow and pancreas. Detected at low levels in heart, breast, placenta, brain, liver, kidney, stomach and lung.

**UBE2V1 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**UBE2V1 Antibody (N-term) Blocking Peptide - Images****UBE2V1 Antibody (N-term) Blocking Peptide - Background**

The CROC1 isoforms, also known as UBE2V1, show sequence similarity to ubiquitin-conjugating enzymes (UBCs, or E2s) but lack the conserved cysteine residue critical to catalytic activity of E2s.<sup>1</sup> Northern blot analysis detected approximately 2.1- and 2.5-kb CROC1 transcripts in all human tissues examined, with the highest levels in brain, skeletal muscle, and kidney. Partial human intestinal epithelial cell cDNAs have been isolated containing the 3-prime coding sequence and 3-prime untranslated region of UBE2V1, also called UEV1.<sup>2</sup> UEV1 does not have ubiquitin-conjugating activity in vitro. UEV1 transcripts are downregulated upon differentiation of a colon carcinoma cell line.<sup>1</sup> Constitutive expression of exogenous UEV1 protein in these colon carcinoma cells inhibits their capacity to differentiate upon confluence and induces changes in cell cycle behavior associated with inhibition of CDK1. A heterodimeric protein complex has been identified that links TRAF6 to IKK activation.<sup>3</sup> Peptide mass fingerprinting analysis revealed that this complex is composed of the ubiquitin conjugating enzyme UBC13 and the UBC-like protein UBE2V1, also called UEV1A. TRAF6, a RING domain protein, functions together with UBC13/UEV1A to catalyze the synthesis of unique polyubiquitin chains linked through lysine-63 (K63) of ubiquitin. Blockade of this polyubiquitin chain synthesis, but not inhibition of the proteasome, prevents the activation of IKK by TRAF6. These results unveil a new regulatory function for ubiquitin, in which IKK is activated through the assembly of K63-linked polyubiquitin chains.