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UBE2V1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP2157b

Specification

UBE2V1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q13404
Other Accession	Q9GZW1

UBE2V1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 387522;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 AP2157b was selected from the C-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 (C-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:31006531). 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 (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

UBE2V1 Antibody (C-term) Blocking Peptide - Images

UBE2V1 Antibody (C-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.1 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-primecoding sequence and 3-prime untranslated region of UBE2V1, also called UEV1.2 UEV1 does not have ubiquitin-conjugating activity in vitro. UEV1 transcripts are downregulated upon differentiation of a colon carcinoma cell line.1 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.3 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.