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# UBE2D3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16801b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P61077 |
| **Other Accession** | P61078, P61079, Q4R5N4, Q3ZCF7, Q06AA9, NP_003331.1, NP_871615.1 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Pig, Bovine, Monkey, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB36300 |
| **Calculated MW** | 16687 |
| **Antigen Region** | 109-136 |

## Additional Information

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| **Gene ID** | 7323 |
| **Other Names** | Ubiquitin-conjugating enzyme E2 D3, Ubiquitin carrier protein D3, Ubiquitin-conjugating enzyme E2(17)KB 3, Ubiquitin-conjugating enzyme E2-17 kDa 3, Ubiquitin-protein ligase D3, UBE2D3, UBC5C, UBCH5C |
| **Target/Specificity** | This UBE2D3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 109-136 amino acids from the C-terminal region of human UBE2D3. |
| **Dilution** | 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 purified through a protein A column, followed by peptide affinity purification. |
| **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** | UBE2D3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | UBE2D3 |
| **Synonyms** | UBC5C, UBCH5C |

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| **Function** | Accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins (PubMed:15247280, PubMed:15496420, PubMed:18284575, PubMed:20061386, PubMed:21532592, PubMed:28322253). In vitro catalyzes 'Lys-11'-, as well as 'Lys-48'- linked polyubiquitination (PubMed:15247280, PubMed:15496420, PubMed:18284575, PubMed:20061386, PubMed:21532592). Cooperates with the E2 CDC34 and the SCF(FBXW11) E3 ligase complex for the polyubiquitination of NFKBIA leading to its subsequent proteasomal degradation (PubMed:20347421). Acts as an initiator E2, priming the phosphorylated NFKBIA target at positions 'Lys-21' and/or 'Lys-22' with a monoubiquitin (PubMed:10329681). Ubiquitin chain elongation is then performed by CDC34, building ubiquitin chains from the UBE2D3-primed NFKBIA-linked ubiquitin (PubMed:10329681). Also acts as an initiator E2, in conjunction with RNF8, for the priming of PCNA (PubMed:18948756). Monoubiquitination of PCNA, and its subsequent polyubiquitination, are essential events in the operation of the DNA damage tolerance (DDT) pathway that is activated after DNA damage caused by UV or chemical agents during S-phase (PubMed:18948756). Associates with the BRCA1/BARD1 E3 ligase complex to perform ubiquitination at DNA damage sites following ionizing radiation leading to DNA repair (PubMed:16628214). Targets DAPK3 for ubiquitination which influences promyelocytic leukemia protein nuclear body (PML-NB) formation in the nucleus (PubMed:18515077). In conjunction with the MDM2 and TOPORS E3 ligases, functions ubiquitination of p53/TP53 (PubMed:12646252, PubMed:15280377). In conjunction with the CBL E3 ligase, targets EGFR for polyubiquitination at the plasma membrane as well as during its internalization and transport on endosomes (PubMed:18508924). In conjunction with the STUB1 E3 quality control E3 ligase, ubiquitinates unfolded proteins to catalyze their immediate destruction (PubMed:11743028). Together with RNF135, catalyzes the viral RNA-dependent 'Lys-63'-linked polyubiquitination of RIGI to activate the downstream signaling pathway that leads to interferon beta production (PubMed:28469175). Together with ZNF598, catalyzes ubiquitination of 40S ribosomal proteins in response to ribosome collisions (PubMed:28685749). In cooperation with the GATOR2 complex, catalyzes 'Lys-6'-linked ubiquitination of NPRL2 (PubMed:36528027). |
| **Cellular Location** | Cell membrane; Peripheral membrane protein. Endosome membrane; Peripheral membrane protein |

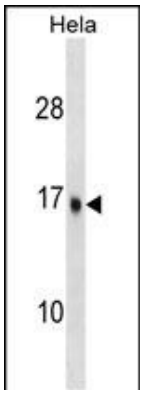
## Background

The modification of proteins with ubiquitin is an important cellular mechanism for targeting abnormal or short-lived proteins for degradation. Ubiquitination involves at least three classes of enzymes: ubiquitin-activating enzymes, or E1s, ubiquitin-conjugating enzymes, or E2s, and ubiquitin-protein ligases, or E3s. This gene encodes a member of the E2 ubiquitin-conjugating enzyme family. This enzyme functions in the ubiquitination of the tumor-suppressor protein p53, which is induced by an E3 ubiquitin-protein ligase. Multiple spliced transcript variants have been found for this gene, but the full-length nature of some variants has not been determined.

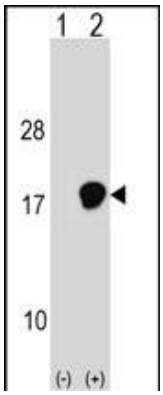
## References

Kalsi, G., et al. Hum. Mol. Genet. 19(12):2497-2506(2010)
Wu, K., et al. Mol. Cell 37(6):784-796(2010)
Vina-Vilaseca, A., et al. J. Biol. Chem. 285(10):7645-7656(2010)
Markson, G., et al. Genome Res. 19(10):1905-1911(2009)
van Wijk, S.J., et al. Mol. Syst. Biol. 5, 295 (2009) :

## Images




UBE2D3 Antibody (C-term) (Cat. #AP16801b) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the UBE2D3 antibody detected the UBE2D3 protein (arrow).




Western blot analysis of UBE2D3 (arrow) using rabbit polyclonal UBE2D3 Antibody (C-term) (Cat. #AP16801b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the UBE2D3 gene.