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UBE2D3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5550

Product Information

Application	WB
Primary Accession	P61077
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16687
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	7323
Antigen Region	109-136
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
Dilution	WB~~1:1000
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.
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

Name	UBE2D3
Synonyms	UBC5C, UBCH5C

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

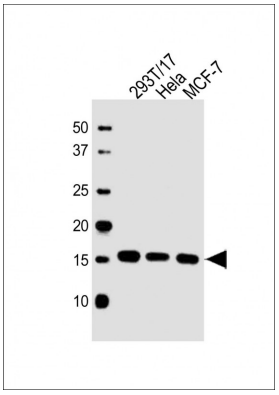
Background

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



All lanes : Anti-UBE2D3 Antibody (C-term) at 1:1000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: Hela whole cell lysate Lane 3: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.