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UBE2D3 Rabbit pAb

Catalog # AP97471

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P61077
Other Accession	P61077
Reactivity	Mouse
Predicted	Rat, Pig, Human, Rabbit, Zebrafish, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16687
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human UBE2D3
Epitope Specificity	55-147/147
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ubiquitin-conjugating enzyme family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. In vitro catalyzes 'Lys-11'-, as well as 'Lys-48'-linked polyubiquitination. Cooperates with the E2 CDC34 and the SCF(FBXW11) E3 ligase complex for the polyubiquitination of NFKBIA leading to its subsequent proteasomal degradation. Acts as an initiator E2, priming the phosphorylated NFKBIA target at positions 'Lys-21' and/or 'Lys-22' with a monoubiquitin. Ubiquitin chain elongation is then performed by CDC34, building ubiquitin chains from the UBE2D3-primed NFKBIA-linked ubiquitin. Acts also as an initiator E2, in conjunction with RNF8, for the priming of PCNA. 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. Associates with the BRCA1/BARD1 E3 ligase complex to perform ubiquitination at DNA damage sites following ionizing radiation leading to DNA repair. Targets DAPK3 for ubiquitination which influences promyelocytic leukemia protein nuclear body (PML-NB) formation in the nucleus. In conjunction with the MDM2 and TOPORS E3 ligases, functions ubiquitination of p53/TP53. Supports NRDP1-mediated ubiquitination and degradation of ERBB3 and of BRUCE which triggers apoptosis. 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. In conjunction with the STUB1 E3 quality control E3 ligase, ubiquitinates unfolded proteins to catalyze their immediate destruction.

Additional Information

Gene ID	7323
Other Names	E2(17)KB3; UBC4/5; UBCH5C; 1100001F19Rik; 9430029A22Rik; UB2D3_HUMAN; UBE2D3; (E3-independent) E2 ubiquitin-conjugating enzyme D3; E2 ubiquitin-conjugating enzyme D3; Ubiquitin carrier protein D3; Ubiquitin-conjugating enzyme E2(17)KB 3; Ubiquitin-conjugating enzyme E2-17 kDa 3; Ubiquitin-protein ligase D3; 2.3.2.23; UBC5C; UB2D3_MOUSE; UB2D3_RAT; Phosphoarginine phosphatase (PAPase); ubiquitin conjugating enzyme E2 D3; ubiquitin-conjugating enzyme E2D 3 (homologous to yeast UBC4/5); ubiquitin-conjugating enzyme E2D 3 (UBC4/5 homolog, yeast); ubiquitin-conjugating enzyme E2D 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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