

# Anti-EDD Rabbit Monoclonal Antibody

Catalog # ABO15823

## Product Information

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|--------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB                                                                                                      |
| <b>Primary Accession</b> | <a href="#">O95071</a>                                                                                  |
| <b>Host</b>              | Rabbit                                                                                                  |
| <b>Isotype</b>           | IgG                                                                                                     |
| <b>Reactivity</b>        | Human, Mouse                                                                                            |
| <b>Clonality</b>         | Monoclonal                                                                                              |
| <b>Format</b>            | Liquid                                                                                                  |
| <b>Description</b>       | Anti-EDD Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse. |

## Additional Information

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| <b>Gene ID</b>             | 51366                                                                                                                                                                                                                                             |
| <b>Other Names</b>         | E3 ubiquitin-protein ligase UBR5, 2.3.2.26, E3 ubiquitin-protein ligase, HECT domain-containing 1, HECT-type E3 ubiquitin transferase UBR5, Hyperplastic discs protein homolog, hHYD, Progesterin-induced protein, UBR5, EDD, EDD1, HYD, KIAA0896 |
| <b>Calculated MW</b>       | 309352                                                                                                                                                                                                                                            |
| <b>Application Details</b> | WB 1:500-1:2000                                                                                                                                                                                                                                   |
| <b>Source</b>              | Eukaryota                                                                                                                                                                                                                                         |
| <b>Contents</b>            | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.                                                                                                                               |
| <b>Clone Names</b>         | Clone: 24U00                                                                                                                                                                                                                                      |
| <b>Immunogen</b>           | A synthesized peptide derived from human EDD                                                                                                                                                                                                      |
| <b>Purification</b>        | Affinity-chromatography                                                                                                                                                                                                                           |
| <b>Storage</b>             | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.                                                                                                        |

## Protein Information

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| <b>Name</b>     | UBR5                                                                                                                                                                                                                                                                           |
| <b>Function</b> | E3 ubiquitin-protein ligase involved in different protein quality control pathways in the cytoplasm and nucleus (PubMed: <a href="#">29033132</a> , PubMed: <a href="#">33208877</a> , PubMed: <a href="#">37478846</a> , PubMed: <a href="#">37478862</a> ). Mainly acts as a |

ubiquitin chain elongator that extends pre-ubiquitinated substrates (PubMed:[29033132](#), PubMed:[37409633](#)). Component of the N-end rule pathway: ubiquitinates proteins bearing specific N-terminal residues that are destabilizing according to the N-end rule, leading to their degradation (By similarity). Recognizes type-1 N-degrons, containing positively charged amino acids (Arg, Lys and His) (By similarity). Together with UBR4, part of a cytoplasm protein quality control pathway that prevents protein aggregation by catalyzing assembly of heterotypic 'Lys-11'-/'Lys-48'-linked branched ubiquitin chains on aggregated proteins, leading to substrate recognition by the segregase p97/VCP and degradation by the proteasome: UBR5 is probably branching multiple 'Lys-48'-linked chains of substrates initially modified with mixed conjugates by UBR4 (PubMed:[29033132](#)). Together with ITCH, catalyzes 'Lys-48'-/'Lys-63'-branched ubiquitination of TXNIP, leading to its degradation: UBR5 mediates branching of 'Lys-48'-linked chains of substrates initially modified with 'Lys-63'-linked conjugates by ITCH (PubMed:[29378950](#)). Catalytic component of a nuclear protein quality control pathway that mediates ubiquitination and degradation of unpaired transcription factors (i.e. transcription factors that are not assembled into functional multiprotein complexes): specifically recognizes and binds degrons that are not accessible when transcription regulators are associated with their coactivators (PubMed:[37478846](#), PubMed:[37478862](#)). Ubiquitinates various unpaired transcription regulator (MYC, SUPT4H1, SUPT5H, CDC20 and MCRS1), as well as ligand- bound nuclear receptors (ESR1, NR1H3, NR3C1, PGR, RARA, RXRA AND VDR) that are not associated with their nuclear receptor coactivators (NCOAs) (PubMed:[33208877](#), PubMed:[37478846](#), PubMed:[37478862](#)). Involved in maturation and/or transcriptional regulation of mRNA by mediating polyubiquitination and activation of CDK9 (PubMed:[21127351](#)). Also acts as a regulator of DNA damage response by acting as a suppressor of RNF168, an E3 ubiquitin-protein ligase that promotes accumulation of 'Lys-63'-linked histone H2A and H2AX at DNA damage sites, thereby acting as a guard against excessive spreading of ubiquitinated chromatin at damaged chromosomes (PubMed:[22884692](#)). Regulates DNA topoisomerase II binding protein (TopBP1) in the DNA damage response (PubMed:[11714696](#)). Ubiquitinates acetylated PCK1 (PubMed:[21726808](#)). Acts as a positive regulator of the canonical Wnt signaling pathway by mediating (1) ubiquitination and stabilization of CTNNB1, and (2) 'Lys- 48'-linked ubiquitination and degradation of TLE3 (PubMed:[21118991](#), PubMed:[28689657](#)). Promotes disassembly of the mitotic checkpoint complex (MCC) from the APC/C complex by catalyzing ubiquitination of BUB1B, BUB3 and CDC20 (PubMed:[35217622](#)). Plays an essential role in extraembryonic development (By similarity). Required for the maintenance of skeletal tissue homeostasis by acting as an inhibitor of hedgehog (HH) signaling (By similarity).

**Cellular Location**

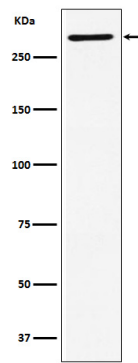
Nucleus. Cytoplasm

**Tissue Location**

Widely expressed. Most abundant in testis and expressed at high levels in brain, pituitary and kidney

**Images**

Western blot analysis of EDD expression in SH-SY5Y cell lysate.



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