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EDD1 / HYD Antibody (C-Term)

Peptide-affinity purified goat antibody
Catalog # AF2330a

Specification

EDD1 / HYD Antibody (C-Term) - Product Information

Application	**WB, IHC, IP, E**
Primary Accession	O95071
Other Accession	NP_056986.2, 51366, 70790 (mouse), 117060 (rat)
Reactivity	**Human, Mouse, Rat, Rabbit**
Predicted	**Pig**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**309352**

EDD1 / HYD Antibody (C-Term) - Additional Information

Gene ID 51366

Other Names
E3 ubiquitin-protein ligase UBR5, 6.3.2.-, E3 ubiquitin-protein ligase, HECT domain-containing 1, Hyperplastic discs protein homolog, hHYD, Progestin-induced protein, UBR5, EDD, EDD1, HYD, KIAA0896

Dilution
WB~~1:1000
IHC~~1:100~500
IP~~N/A
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
EDD1 / HYD Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

EDD1 / HYD Antibody (C-Term) - Protein Information

Name UBR5

Function

E3 ubiquitin-protein ligase involved in different protein quality control pathways in the cytoplasm and nucleus (PubMed:29033132, PubMed:33208877, PubMed:37478846, PubMed:37478862). 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

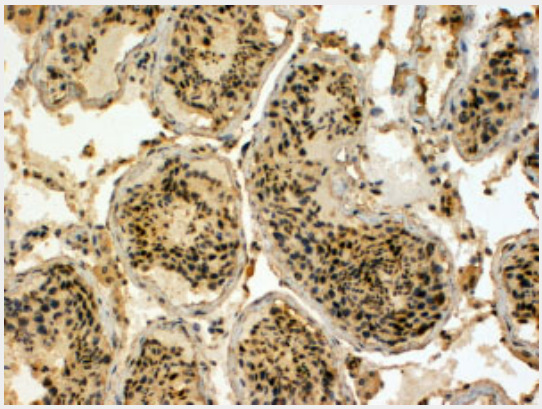
Tissue Location
Widely expressed. Most abundant in testis and expressed at high levels in brain, pituitary and kidney

EDD1 / HYD Antibody (C-Term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

EDD1 / HYD Antibody (C-Term) - Images



AF2330a (4 µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with Tris/EDTA buffer pH 9, HRP-staining. These results could not be obtained after antigen retrieval at pH6.

EDD1 / HYD Antibody (C-Term) - References

EDD, the human hyperplastic discs protein, has a role in progesterone receptor coactivation and potential involvement in DNA damage response. Henderson MJ, Russell AJ, Hird S, Munoz M, Clancy JL, Lehrbach GM, Calanni ST, Jans DA, Sutherland RL, Watts CK. J Biol Chem. 2002 Jul 19;277(29):26468-78. PMID: 12011095