

KD-Validated Anti-UBR5 Rabbit Polyclonal Antibody
Rabbit polyclonal antibody
Catalog # AGI2140**Specification****KD-Validated Anti-UBR5 Rabbit Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	O95071
Reactivity	Rat, Human, Mouse
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 309 kDa, observed, 309 kDa
Gene Name	KDa
Aliases	UBR5 UBR5; Ubiquitin Protein Ligase E3 Component N-Recognin 5; HYD; EDD; KIAA0896; EDD1; DD5; E3 Ubiquitin-Protein Ligase, HECT Domain-Containing 1; Hyperplastic Discs Protein Homolog; E3 Ubiquitin-Protein Ligase UBR5; Progesterin-Induced Protein; E3 Ubiquitin Protein Ligase, HECT Domain Containing, 1; HECT-Type E3 Ubiquitin Transferase UBR5; E3 Identified By Differential Display; EC 2.3.2.26; EC 6.3.2; HHYD
Immunogen	A synthesized peptide derived from human UBR5

KD-Validated Anti-UBR5 Rabbit Polyclonal Antibody - Additional Information

Gene ID	51366
Other Names	
E3 ubiquitin-protein ligase UBR5, 2.3.2.26, E3 ubiquitin-protein ligase, HECT domain-containing 1, Hyperplastic discs protein homolog, hHYD, Progesterin-induced protein, UBR5	

KD-Validated Anti-UBR5 Rabbit Polyclonal Antibody - Protein Information**Name** UBR5**Function**

E3 ubiquitin-protein ligase involved in different protein quality control pathways in the cytoplasm and nucleus (PubMed: [29033132](http://www.uniprot.org/citations/29033132), PubMed: [33208877](http://www.uniprot.org/citations/33208877), PubMed: [37478846](http://www.uniprot.org/citations/37478846), PubMed: [37478862](http://www.uniprot.org/citations/37478862)). Mainly acts as a ubiquitin chain elongator that extends pre-ubiquitinated substrates (PubMed: [29033132](http://www.uniprot.org/citations/29033132), PubMed: [37409633](http://www.uniprot.org/citations/37409633)).

target="_blank">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

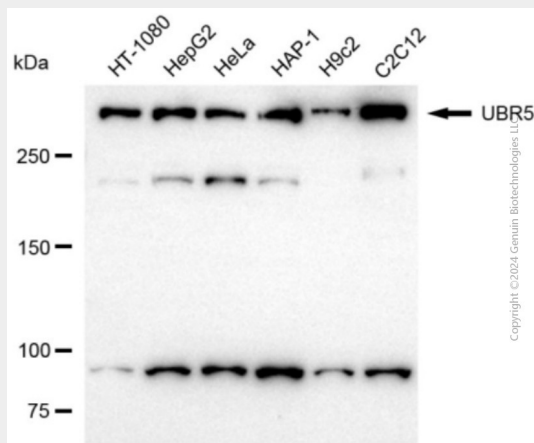
Widely expressed. Most abundant in testis and expressed at high levels in brain, pituitary and kidney

KD-Validated Anti-UBR5 Rabbit Polyclonal Antibody - Protocols

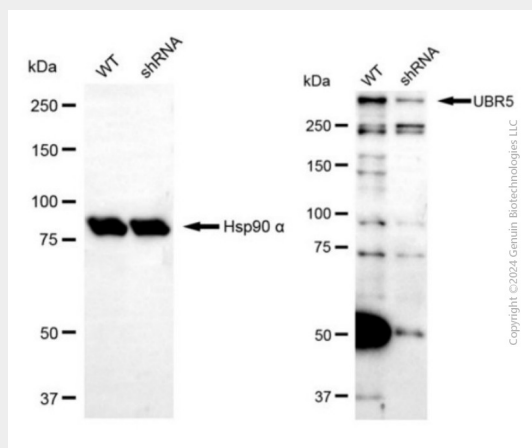
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-UBR5 Rabbit Polyclonal Antibody - Images



Western blotting analysis using anti-UBR5 antibody (Cat#AGI2140). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-UBR5 antibody (Cat#AGI2140, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-UBR5 antibody (Cat#AGI2140). UBR5 expression in wild-type (WT) and UBR5 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-UBR5 antibody (Cat#AGI2140, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody respectively.