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HRD1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2184e

Specification

HRD1 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q86TM6
Other Accession	Q5XHH7, Q6NRL6, Q9DBY1
Reactivity	**Human**
Predicted	**Mouse, Xenopus**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**106-138**

HRD1 Antibody (N-term) - Additional Information

Gene ID 84447

Other Names
E3 ubiquitin-protein ligase synoviolin, 632-, Synovial apoptosis inhibitor 1, SYVN1, HRD1, KIAA1810

Target/Specificity
This HRD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 106-138 amino acids from the N-terminal region of human HRD1.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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
HRD1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

HRD1 Antibody (N-term) - Protein Information

Name SYVN1

Synonyms HRD1, KIAA1810

Function E3 ubiquitin-protein ligase which accepts ubiquitin specifically from endoplasmic reticulum-associated UBC7 E2 ligase and transfers it to substrates, promoting their degradation (PubMed:12459480, PubMed:12646171, PubMed:12975321, PubMed:14593114, PubMed:16289116, PubMed:16847254, PubMed:17059562, PubMed:17141218, PubMed:17170702, PubMed:22607976, PubMed:26471130, PubMed:28827405). Component of the endoplasmic reticulum quality control (ERQC) system also called ER-associated degradation (ERAD) involved in ubiquitin- dependent degradation of misfolded endoplasmic reticulum proteins (PubMed:12459480, PubMed:12646171, PubMed:12975321, PubMed:14593114, PubMed:16289116, PubMed:16847254, PubMed:17059562, PubMed:17141218, PubMed:17170702, PubMed:22607976, PubMed:26471130, PubMed:28842558). Also promotes the degradation of normal but naturally short-lived proteins such as SGK. Protects cells from ER stress-induced apoptosis. Protects neurons from apoptosis induced by polyglutamine-expanded huntingtin (HTT) or unfolded GPR37 by promoting their degradation (PubMed:17141218). Sequesters p53/TP53 in the cytoplasm and promotes its degradation, thereby negatively regulating its biological function in transcription, cell cycle regulation and apoptosis (PubMed:17170702). Mediates the ubiquitination and subsequent degradation of cytoplasmic NFE2L1 (By similarity). During the early stage of B cell development, required for degradation of the pre-B cell receptor (pre-BCR) complex, hence supporting further differentiation into mature B cells (By similarity).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location
Ubiquitously expressed, with highest levels in liver and kidney (at protein level). Up-regulated in synovial tissues from patients with rheumatoid arthritis (at protein level)

HRD1 Antibody (N-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

HRD1 Antibody (N-term) - Images

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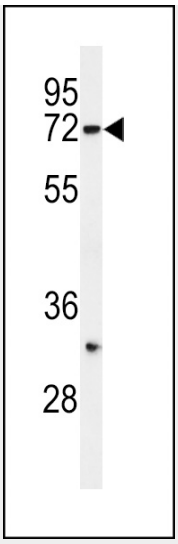

Western blot analysis of HRD1 Antibody (N-term) (Cat. #AP2184e) in SK-BR-3 cell line lysates (35ug/lane). HRD1 (arrow) was detected using the purified Pab.

HRD1 Antibody (N-term) - Background

HRD1 encodes a protein involved in endoplasmic reticulum (ER)-associated degradation. The encoded protein removes unfolded proteins, accumulated during ER stress, by retrograde transport to the cytosol from the ER. This protein also uses the ubiquitin-proteasome system for additional degradation of unfolded proteins. This gene and the mitochondrial ribosomal protein L49 gene use in their respective 3' UTRs some of the same genomic sequence.

HRD1 Antibody (N-term) - References

Bernardi, K.M., et al. Mol. Biol. Cell 21(1):140-151(2010) Ballar, P., et al. Int. J. Biochem. Cell Biol. 42(1):167-173(2010) Shmueli, A., et al. Biochem. Biophys. Res. Commun. 390(3):758-762(2009)

HRD1 Antibody (N-term) - Citations

- Pharmacological activation of ATF6 remodels the proteostasis network to rescue pathogenic GABA receptors
- Anti-Warburg effect by targeting HRD1-PFKP pathway may inhibit breast cancer progression
- Proteostasis Regulators Restore Function of Epilepsy-Associated GABAReceptors
- Grp94 Delivers γ-aminobutyric Acid Type A (GABAA) Receptors to Hrd1-Mediatd Endoplasmic Reticulum-Associated Degradation.
- TMEM129 is a Derlin-1 associated ERAD E3 ligase essential for virus-induced degradation of MHC-I.
- Enhanced endoplasmic reticulum entry of tumor antigen is crucial for cross-presentation induced by dendritic cell-targeted vaccination.
- MHC class I molecules are preferentially ubiquitinated on endoplasmic reticulum luminal residues during HRD1 ubiquitin E3 ligase-mediated dislocation.