SYVN1 (HRD1) Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2184A

Specification

SYVN1 (HRD1) Antibody (C-term) - Product Information

<table>
<thead>
<tr>
<th>Application</th>
<th>IF, WB, IHC-P,E</th>
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</thead>
<tbody>
<tr>
<td>Primary Accession</td>
<td>Q86TM6</td>
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<tr>
<td>Other Accession</td>
<td>Q9DBY1, Q8N6E8</td>
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<tr>
<td>Reactivity</td>
<td>Human, Mouse</td>
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<td>Host</td>
<td>Rabbit</td>
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<tr>
<td>Clonality</td>
<td>Polyclonal</td>
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<tr>
<td>Isotype</td>
<td>Rabbit Ig</td>
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<tr>
<td>Antigen Region</td>
<td>586-617</td>
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</table>

SYVN1 (HRD1) Antibody (C-term) - Additional Information

Gene ID 84447

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

Target/Specificity
This SYVN1 (HRD1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 586-617 amino acids from the C-terminal region of human SYVN1 (HRD1).

Dilution
IF—1:200
WB—1:1000
IHC-P—1:50~100

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 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SYVN1 (HRD1) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SYVN1 (HRD1) Antibody (C-term) - Protein Information

Fluorescent confocal image of HeLa cells stained with SYVN1 (HRD1) (C-term) antibody. HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP2184a SYVN1 (HRD1) (C-term) primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 μg/ml, 5 min).

Mouse Neuroblastoma Neuro2A (N2A) was transiently transfected, collected at 72h after transfection. Primary antibodies against syvn1 (Abgent # AP2184a, 1:1000) and anti-rabbit secondary POD-conjugated antibodies from
Name SYVN1

Synonyms HRD1, KIAA1810

Function
Acts as an E3 ubiquitin-protein ligase which accepts ubiquitin specifically from endoplasmic reticulum-associated UBC7 E2 ligase and transfers it to substrates, promoting their degradation. 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. 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. Sequesters p53/TP53 in the cytoplasm and promotes its degradation, thereby negatively regulating its biological function in transcription, cell cycle regulation and apoptosis.

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).

SYVN1 (HRD1) 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 Cytometry
- Cell Culture

Western blot analysis of SYVN1 (HRD1) Antibody (C-term) (Cat. #AP2184a) in T47D cell line lysates (35ug/lane). HRD1 (arrow) was detected using the purified Pab.

The anti-HRD1 Pab (Cat. #AP2184a) is used in Western blot to detect HRD1 in mouse kidney tissue lysate.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this...
antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Formalin-fixed and paraffin-embedded human Liver tissue reacted with SYVN1 (HRD1) Antibody (C-term)(Cat.#AP2184a), which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

SYVN1 (HRD1) Antibody (C-term) - Background

HRD1 is a ubiquitin ligase whose expression is induced by the unfolded protein response (UPR) following endoplasmic reticulum stress. Expression of HRD1 protects cells from apoptosis by inducing degradation of abnormally processed proteins that accumulate in the endoplasmic reticulum. HRD1 is expressed in many tissues, strongly expressed in brain, pancreas, liver, kidney and skeletal muscle. Amano T, et al. reported that Synoviolin/Hrd1 (expressed in rheumatoid synovium) is a novel causative factor for arthropathy by triggering synovial cell outgrowth through its antiapoptotic effects. HRD1 contains one ring-type zinc finger.

SYVN1 (HRD1) Antibody (C-term) - References

SYVN1 (HRD1) Antibody (C-term) - Citations

- **Acute ER stress regulates amyloid precursor protein processing through ubiquitin-dependent degradation.**
- **Deglycosylation-dependent fluorescent proteins provide unique tools for the study of ER-associated degradation.**
- **Vacuolar-type H^+\text{-ATPase} V1A subunit is a molecular partner of Wolfram syndrome 1 (WFS1) protein, which regulates its expression and stability.**
- **Ubiquitin ligase substrate identification through quantitative proteomics at both the protein and peptide levels.**
- **Cyclosporin A induces the unfolded protein response in keratinocytes.**
- **Loss of HRD1-mediated protein degradation causes amyloid precursor protein accumulation and amyloid-beta generation.**
- **Correlation between decrease in protein levels of ubiquitin ligase HRD1 and amyloid-beta production.**
- **An E3 ubiquitin ligase, Synoviolin, is involved in the degradation of immature nicastrin, and regulates the production of amyloid beta-protein.**
- **The unfolded protein response is activated in differentiating epidermal keratinocytes.**
- **Overexpression of synoviolin in peripheral blood and synoviocytes from rheumatoid arthritis patients and continued elevation in nonresponders to infliximab treatment.**
- **WFS1-deficiency increases endoplasmic reticulum stress, impairs cell cycle progression and triggers the apoptotic pathway specifically in pancreatic beta-cells.**