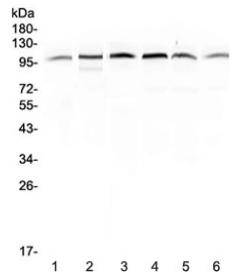
MVP Antibody for WB / Major Vault Protein Western Blot Antibody (RQ4254)

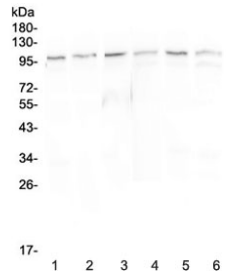
Catalog No.	Formulation	Size
RQ4254	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

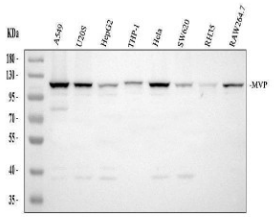
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q14764
Localization	Cytoplasmic, nuclear
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Immunofluorescence/Immunocytochemistry (FFPE) : 2-4ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This MVP Antibody for WB / Major Vault Protein Western Blot Antibody is available for research use only.



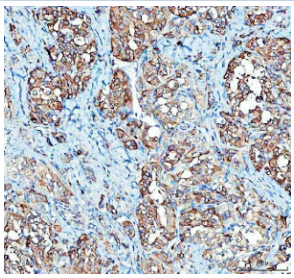
MVP Antibody Human Sample WB. Western blot analysis of Major Vault Protein (MVP / LRP) expression in human samples using a rabbit polyclonal MVP antibody. Lane 1: placenta lysate, Lane 2: HepG2 lysate, Lane 3: A549 lysate, Lane 4: PANC-1 lysate, Lane 5: SGC-7901 lysate, Lane 6: MDA-MB-231 lysate. A strong band is detected at approximately 104-110 kDa, consistent with the predicted molecular weight of Major vault protein (MVP). The band is observed across multiple epithelial-derived cell lines and tissue lysate, aligning with the known widespread expression of MVP and its role as a core component of vault complexes associated with drug resistance and cellular stress response pathways.



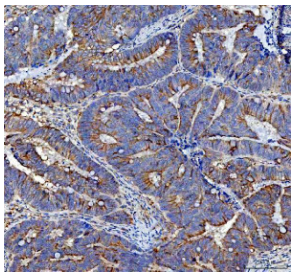
MVP Antibody Rodent Sample WB. Western blot analysis of Major Vault Protein (MVP / LRP) expression in rodent tissues using a rabbit polyclonal MVP antibody. Lane 1: rat spleen lysate, Lane 2: rat lung lysate, Lane 3: rat kidney lysate, Lane 4: mouse spleen lysate, Lane 5: mouse lung lysate, Lane 6: mouse kidney lysate. A band is detected at approximately 104-110 kDa, consistent with the predicted molecular weight of Major vault protein (MVP). The signal is observed across multiple tissues in both rat and mouse, supporting the conserved and widespread expression of MVP and its role as a structural component of vault complexes involved in intracellular transport and cellular stress response pathways.



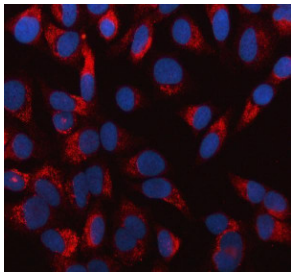
MVP Antibody for WB Human, Rat and Mouse WB. Western blot analysis of lane 1: human A549, lane 2: human U2OS, lane 3: human HepG2, lane 4: human THP-1, lane 5: human HeLa, lane 6: human SW620, lane 7: rat RH35, and lane 8: mouse RAW264.7 cell lysates using MVP Antibody for WB / Major Vault Protein Western Blot Antibody at 0.5 ug/ml. A specific band is detected at approximately 100-110 kDa, consistent with the expected molecular weight of the 99 kDa Major Vault Protein. This MVP Antibody for WB, also called Major Vault Protein Western Blot Antibody, is suitable for Western blot studies of vault ribonucleoprotein complexes, multidrug resistance, intracellular transport, and Major Vault Protein expression across multiple species.



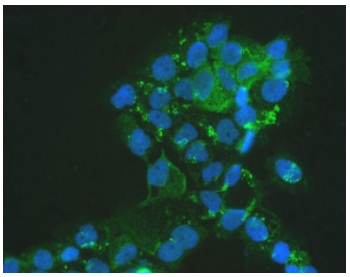
MVP Antibody Human Thyroid Cancer IHC. Immunohistochemical staining of FFPE human thyroid cancer tissue using MVP Antibody / Major Vault Protein Antibody at 2 ug/ml. Heat-induced epitope retrieval was performed using pH8 EDTA buffer, followed by HRP-conjugated secondary antibody detection and DAB chromogen. Strong cytoplasmic staining is observed throughout the tumor cells, consistent with the expected localization of Major Vault Protein. This MVP Antibody, also called Major Vault Protein Antibody, is suitable for studies of vault ribonucleoprotein complexes, intracellular transport, multidrug resistance, and Major Vault Protein expression.



MVP Antibody Human Colon Cancer IHC. Immunohistochemical staining of FFPE human colon cancer tissue using MVP Antibody / Major Vault Protein Antibody at 2 ug/ml. Heat-induced epitope retrieval was performed using pH8 EDTA buffer, followed by HRP-conjugated secondary antibody detection and DAB chromogen. Strong cytoplasmic staining is observed throughout the glandular tumor epithelium, consistent with the expected localization of Major Vault Protein. This MVP Antibody, also called Major Vault Protein Antibody, is suitable for studies of vault ribonucleoprotein complexes, intracellular transport, multidrug resistance, and Major Vault Protein expression.



MVP Antibody HeLa Cell IF. Immunofluorescent staining of HeLa cells using MVP Antibody / Major Vault Protein Antibody at 5 ug/ml. Cells underwent enzyme-mediated antigen retrieval for 15 minutes before incubation with the primary antibody. Major Vault Protein was detected with a Cy3-conjugated secondary antibody (red), and cell nuclei were counterstained with DAPI (blue). The staining demonstrates predominantly cytoplasmic localization of MVP, consistent with its established role as the principal component of vault ribonucleoprotein particles. This MVP Antibody, also called Major Vault Protein Antibody, is suitable for studies of vault complex biology, intracellular transport, multidrug resistance, and protein localization by immunofluorescence microscopy.



MVP Antibody IF/ICC. Immunofluorescence staining of FFPE human A431 cells with MVP antibody (green) at 2ug/ml and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.

Description

Major Vault Protein (MVP), encoded by the MVP gene, is the principal structural component of vault ribonucleoprotein particles, large cytoplasmic complexes involved in intracellular transport, signal transduction, and cellular stress responses. MVP is also widely known as Lung resistance-related protein (LRP), and is frequently studied as a biomarker of multidrug resistance in cancer. MVP is broadly expressed across tissues, with particularly high levels in epithelial cells, immune populations, and tumor cells exhibiting therapy-resistant phenotypes.

MVP Antibody for WB, also referred to as Major vault protein western blot antibody or LRP antibody for western blot in the literature, is specifically designed for detecting MVP protein in denatured lysates with size resolution and quantitative comparison. This MVP Antibody for WB / Major Vault Protein Western Blot Antibody is uniquely positioned for experiments requiring clear band identification, relative expression analysis, and comparison across treatment conditions, making it well suited for studies of chemoresistance, cellular stress, and signaling pathway modulation. As a rabbit polyclonal antibody, it provides multi-epitope recognition, which supports strong signal detection even in complex or partially degraded samples.

In western blot applications, MVP is typically detected as a prominent high molecular weight band corresponding to its role as the dominant vault complex component. Depending on experimental conditions, additional bands may be observed due to post-translational modifications, partial processing, or association with vault complex components. These migration patterns are particularly relevant when analyzing samples subjected to drug treatment, oxidative stress, or signaling pathway activation, where MVP expression and modification state may change dynamically.

A Major vault protein western blot antibody is especially valuable for comparing MVP expression between drug-sensitive and drug-resistant cell lines. Elevated MVP levels are consistently associated with reduced intracellular drug accumulation, altered apoptotic signaling, and enhanced survival under chemotherapeutic stress. Western blot analysis provides a direct method to quantify these differences, enabling researchers to correlate MVP expression with resistance phenotypes and treatment response.

Beyond its role in drug resistance, MVP participates in signaling pathways such as PI3K-AKT and has been linked to regulation of apoptosis, autophagy, and cellular stress adaptation. Changes in MVP expression detected by western blot can therefore reflect broader alterations in cell survival pathways. This makes MVP antibody for WB particularly useful in mechanistic studies investigating how cells respond to environmental stress, immune signaling, or therapeutic intervention.

The MVP gene is located on chromosome 16p11.2 and encodes a protein composed of repeating structural domains that assemble into the characteristic barrel-shaped vault particle. While MVP is predominantly cytoplasmic, its interactions with signaling proteins and potential involvement in nucleocytoplasmic transport highlight its functional complexity. Western blot analysis enables consistent detection of MVP across diverse sample types, supporting reproducible evaluation of its expression and regulation.

This Major vault protein western blot antibody is suitable for detecting MVP expression in cell and tissue lysates, providing a reliable tool for studies of drug resistance, intracellular transport, and signaling pathway regulation where precise protein detection is required.

This MVP antibody is part of a broader collection of research tools designed to support studies in cancer biology, intracellular transport, and drug resistance mechanisms.

Application Notes

Optimal dilution of the MVP Antibody for WB / Major Vault Protein Western Blot Antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids A2-H259 was used as the immunogen for the MVP antibody.

Storage

After reconstitution, the MVP antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Major vault protein western blot antibody, Lung resistance-related protein western blot antibody, LRP antibody for western blot, MVP antibody for WB, Vault protein western blot antibody

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