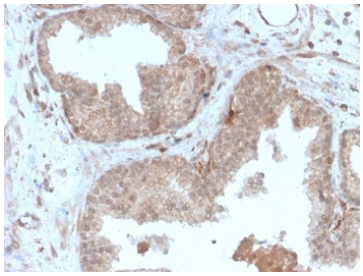
MVP Antibody / Intracellular Transport Regulator Antibody [clone r1032] (V4405)

Catalog No.	Formulation	Size
V4405-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4405-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4405SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

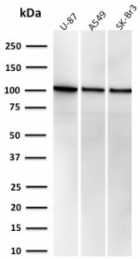
Recombinant | MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	r1032
Purity	Protein A/G affinity
UniProt	Q14764
Localization	Cytoplasm
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This MVP Antibody / Intracellular Transport Regulator Antibody is available for research use only.



MVP Antibody Prostate IHC. Immunohistochemistry analysis of Major Vault Protein (MVP / LRP) expression in FFPE human prostate tissue using clone r1032 recombinant mouse monoclonal antibody. Glandular epithelial cells exhibit moderate cytoplasmic HRP-DAB brown staining with a diffuse to finely granular pattern, while surrounding stromal cells show minimal background signal. The staining highlights luminal epithelial structures and intracellular distribution consistent with the role of Major vault protein in intracellular transport and signaling regulation. Heat-induced epitope retrieval was performed in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to antibody incubation.



MVP Antibody WB. Western blot analysis of Major Vault Protein (MVP / LRP) expression in human cell lysates using clone r1032 recombinant mouse monoclonal antibody. Lane 1: U-87 lysate, Lane 2: A549 lysate, Lane 3: SK-BR-3 lysate. A band is detected at approximately 104-110 kDa, consistent with the predicted molecular weight of Major vault protein. The consistent band intensity across multiple epithelial-derived cell lines supports reliable detection of MVP as a key regulator of intracellular transport and signaling pathways.

Description

Major Vault Protein (MVP), encoded by the MVP gene, is a key component of vault ribonucleoprotein particles and plays an important role in intracellular transport and signaling regulation. MVP is also known as Lung resistance-related protein (LRP) and is widely expressed in epithelial and immune cell populations, where it contributes to cellular adaptation and stress response pathways.

MVP Antibody, also referred to as Major vault protein antibody or LRP antibody in the literature, is widely used for studying intracellular trafficking and signaling mechanisms. This MVP Antibody / Intracellular Transport Regulator Antibody is uniquely positioned for investigating how MVP regulates movement of macromolecules within the cell and coordinates signaling responses to environmental and physiological stimuli. The intracellular transport regulator antibody differentiator emphasizes functional dynamics and spatial redistribution rather than static expression alone.

Clone r1032 antibody, a recombinant mouse monoclonal antibody derived from clone 1032, provides consistent and reproducible detection of MVP, supporting applications where signal stability and batch-to-batch consistency are important for studying dynamic intracellular processes. Its recombinant format enables reliable performance across experimental conditions where precise comparison of protein localization or expression is required.

Vault particles, composed primarily of MVP along with TEP1 and vault-associated RNAs, are proposed to function as transport units that facilitate movement between cytoplasmic and nuclear compartments. MVP plays a central role in organizing these complexes and may influence selective transport of proteins, RNA molecules, or signaling mediators. This transport function is supported by the subcellular distribution of MVP, which often shows cytoplasmic localization with perinuclear enrichment and association with vesicular trafficking pathways.

In addition to its role in transport, MVP interacts with signaling pathways such as PI3K-AKT and has been linked to regulation of apoptosis, autophagy, and immune signaling. These interactions position MVP as a regulator of cellular signaling networks that respond to stress, growth signals, and environmental changes. Changes in MVP expression or intracellular localization may therefore reflect alterations in signaling pathway activity and cellular state.

A key advantage of using an MVP Antibody for transport and signaling studies is the ability to connect expression patterns with functional outcomes. Detection of MVP can be used to monitor how cells respond to stimuli such as oxidative stress, cytokine exposure, or therapeutic treatment. This makes MVP particularly valuable for studies focused on dynamic cellular processes, including trafficking, signaling modulation, and stress adaptation.

Subcellular localization studies show that MVP distribution can shift under different conditions, supporting its role as a dynamic regulator of intracellular organization. These changes may influence the movement of signaling molecules or the activation of downstream pathways, further highlighting the functional importance of MVP in maintaining cellular homeostasis.

The MVP gene is located on chromosome 16p11.2 and encodes a protein composed of repeating structural domains that assemble into vault particles. Its dual role in transport and signaling underscores its importance in coordinating cellular responses to internal and external cues.

This MVP antibody is suitable for detecting Major vault protein expression in studies of intracellular transport, signaling pathway regulation, and cellular stress response mechanisms.

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 recombinant MVP Antibody / Intracellular Transport Regulator Antibody should be determined by the researcher.

Immunogen

Proteins precipitated from human breast cancer MCF-7 cells were used as the immunogen for the recombinant MVP antibody.

Storage

Aliquot the MVP antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

MVP transport protein antibody, Major vault protein trafficking antibody, Lung resistance-related protein transport antibody, LRP intracellular transport antibody, MVP signaling regulator antibody