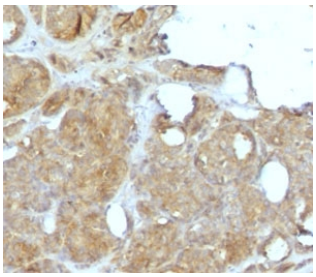
MVP Antibody for IHC [clone MJVP-1R] (V7386)

Catalog No.	Formulation	Size
V7386-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7386-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7386SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7386IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MJVP-1R
Purity	Protein A affinity chromatography
UniProt	Q14764
Localization	Cytoplasmic, nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Prediluted IHC Only Format : incubate for 30 min at RT (1)
Limitations	This MVP Antibody for IHC is available for research use only.



MVP Antibody for IHC. Immunohistochemistry analysis of Major Vault Protein (MVP / LRP) expression in FFPE human breast carcinoma using clone MJVP-1R mouse monoclonal antibody. Tumor epithelial cells exhibit moderate to strong cytoplasmic HRP-DAB brown staining with a diffuse to granular pattern, consistent with intracellular vault complex localization, while surrounding stromal elements show lower background signal. The staining highlights malignant cell populations within tumor nests, supporting the association of Major vault protein with tumor cell survival and drug resistance-related cellular stress pathways. Heat-induced epitope retrieval was performed in pH 9 10mM Tris with 1mM EDTA for 10-20 minutes followed by cooling prior to antibody incubation.

Description

Major Vault Protein (MVP), encoded by the MVP gene, is the primary structural component of vault ribonucleoprotein particles and is widely studied for its role in intracellular transport, signal transduction, and cellular stress responses. MVP is also known as Lung resistance-related protein (LRP), a designation that reflects its strong association with multidrug resistance in cancer. MVP expression is frequently elevated in tumor cells, particularly in malignancies that exhibit resistance to chemotherapy.

MVP Antibody for IHC, also referred to as Major vault protein immunohistochemistry antibody or LRP antibody for IHC in the literature, is specifically suited for evaluating MVP expression in tumor tissue sections. This MVP Antibody for IHC (clone MJVP-1R) is uniquely positioned for studies focused on tumor biology and treatment resistance, where detection of MVP can provide insight into cellular adaptation under therapeutic pressure. Clone MJVP-1R antibody supports consistent cytoplasmic staining, enabling reliable identification of MVP-expressing tumor cell populations in formalin-fixed tissue.

In immunohistochemistry applications, MVP is typically observed as cytoplasmic staining within tumor epithelial cells, often with diffuse to granular patterns corresponding to vault particle distribution. Increased staining intensity may be seen in malignant cells relative to adjacent non-neoplastic tissue, supporting its association with tumor progression and resistance phenotypes. The staining highlights tumor cell populations within the context of tissue architecture, allowing correlation with histopathological features.

A major application of MVP antibody for IHC is the study of multidrug resistance. Elevated MVP expression has been reported in lung, breast, ovarian, and hematologic malignancies, where it is associated with reduced intracellular drug accumulation and altered apoptotic signaling. Immunohistochemistry enables direct visualization of these expression patterns within tumor sections, supporting assessment of spatial heterogeneity and regional variation in expression.

MVP is involved in signaling pathways such as PI3K-AKT and contributes to regulation of apoptosis, autophagy, and cellular stress responses. In tumor cells, these pathways support survival under chemotherapeutic stress. Detection of MVP by immunohistochemistry provides a spatially resolved view of these processes, allowing evaluation of expression patterns across tumor regions, including invasive fronts and densely cellular areas.

In addition to tumor cells, MVP expression may be observed in stromal and immune components within the tumor microenvironment. Interpretation of staining therefore requires consideration of both tumor and non-tumor compartments. Immunohistochemistry using MVP antibody allows these relationships to be examined within intact tissue sections.

The MVP gene is located on chromosome 16p11.2 and encodes a protein composed of repeating structural domains that assemble into vault particles. Its role in drug resistance and cellular stress response makes it a relevant marker for studies of tumor biology and therapeutic response.

This MVP antibody for IHC is suitable for detecting Major vault protein expression in formalin-fixed tissue sections, supporting studies of tumor biology, drug resistance, and tissue-level protein localization.

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

The stated application concentrations are suggested starting points. Titration of the MVP Antibody for IHC may be required due to differences in protocols and secondary/substrate sensitivity.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein was used as the immunogen for the recombinant MVP antibody.

Storage

Store the recombinant MVP antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

MVP immunohistochemistry antibody, Major vault protein IHC antibody, Lung resistance-related protein immunohistochemistry antibody, LRP antibody for IHC, MVP tumor marker antibody