

# Major Vault Protein (MVP) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 1014]

Catalog # AH12831

## Product Information

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<b>Application</b>	IF, FC
<b>Primary Accession</b>	<a href="#">Q14764</a>
<b>Other Accession</b>	<a href="#">9961</a> , <a href="#">632177</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1, kappa
<b>Clone Names</b>	1014
<b>Calculated MW</b>	99327

## Additional Information

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<b>Gene ID</b>	9961
<b>Other Names</b>	Major vault protein, MVP, Lung resistance-related protein, MVP, LRP
<b>Application Note</b>	IF~~1:50~200 FC~~1:10~50
<b>Storage</b>	Store at 2 to 8°C.Antibody is stable for 24 months.
<b>Precautions</b>	Major Vault Protein (MVP) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	MVP
<b>Synonyms</b>	LRP
<b>Function</b>	Required for normal vault structure. Vaults are multi-subunit structures that may act as scaffolds for proteins involved in signal transduction. Vaults may also play a role in nucleo-cytoplasmic transport. Down-regulates IFNG-mediated STAT1 signaling and subsequent activation of JAK. Down-regulates SRC activity and signaling through MAP kinases.
<b>Cellular Location</b>	Cytoplasm. Nucleus, nuclear pore complex. Cytoplasm, perinuclear region. Note=5% found in the nuclear pore complex (PubMed:15133037). Translocates from the nucleus to the cytoplasm upon EGF treatment (PubMed:16441665)

<b>Tissue Location</b>	Present in most normal tissues. Higher expression observed in epithelial cells with secretory and excretory functions, as well as in cells chronically exposed to xenobiotics, such as bronchial cells and cells lining the intestine. Overexpressed in many multidrug- resistant cancer cells
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## Background

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Recognizes a protein of 104kDa-110kDa, characterized as major vault protein (MVP). Vaults are large ribonucleoprotein particles (RNPs) present in all eukaryotic cells. They have a complex morphology, including several small molecules of RNA, but a single protein species. The MVP accounts for >70% of their mass. Their shape is reminiscent of the nucleopore central plug. Treatment of cells with estradiol increases the amount of MVP in nuclear extract. The hormone-dependent interaction of vaults with ER is prevented in vitro by sodium molybdate. Antibodies to estrogen, progesterone and glucocorticoid receptors are able to co-immunoprecipitate the MVP. MVP is overexpressed in many neoplastic tissues and cell lines. Expression of MVP predicts a poor response to chemotherapy.

## References

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Abbondanza C, Rossi V, Roscigno A, Gallo L, Belsito A, Piluso G, Medici N, Nigro V, Molinari AM, Moncharmont B, Puca GA: Interaction of vault particles with estrogen receptor in the MCF-7 breast cancer cell. *J Cell Biol* 1998;141(6):1301-1310. | Den Boer, M.L. et al. Relationship between major vault protein/lung resistance protein, multidrug resistance-associated protein, P-glycoprotein expression, and drug resistance in childhood leukemia. *Blood* 91, 2092-2098 (1998)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.