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

Mouse Monoclonal Antibody [Clone 1014]
Catalog # AH12831

Product Information

Application	IF, FC
Primary Accession	Q14764
Other Accession	9961, 632177
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	1014
Calculated MW	99327

Additional Information

Gene ID	9961
Other Names	Major vault protein, MVP, Lung resistance-related protein, MVP, LRP
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	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

Name	MVP
Synonyms	LRP
Function	Structural component of the vault particle, which is a massive ribonucleoprotein complex that may play a role in cargo transport and signal transduction (PubMed:40691181). Oligomerizes to form a cage-like vault complex, which can house several minor vault components including PARP4 (PubMed:40691181). Vaults may play a role in nucleo-cytoplasmic transport (PubMed:15133037). Down-regulates IFNG- mediated STAT1 signaling and subsequent activation of JAK (PubMed:16418217). Down-regulates SRC activity and signaling through MAP kinases (PubMed:16441665).
Cellular Location	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)
Tissue Location	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

Background

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

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'.