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# anti-MVP antibody (AA 2-259)





# Overview

Quantity:	100 μg
Target:	MVP
Binding Specificity:	AA 2-259
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Flow Cytometry (FACS), ELISA, Immunocytochemistry (ICC)

# **Product Details**

Brand:	Picoband™
Immunogen:	E. coli-derived human MVP recombinant protein (Position: A2-H259).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for MVP detection. Tested with WB, IHC-P, IHC-F, ICC, FCM, Direct ELISA in Human, Mouse, Rat.

# Target Details

Target:	MVP
Alternative Name:	MVP (MVP Products)
Background:	Synonyms: Major vault protein, MVP, Lung resistance-related protein, MVP, LRP
	Tissue Specificity: 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: Major vault protein is a protein that in humans is encoded by the MVP gene. This gene encodes the major component of the vault complex. Vaults are multi-subunit ribonucleoprotein structures that may be involved in nucleo-cytoplasmic transport. The encoded protein may play a role in multiple cellular processes by regulating the MAP kinase, JAK/STAT and phosphoinositide 3-kinase/Akt signaling pathways. The encoded protein also plays a role in multidrug resistance, and expression of this gene may be a prognostic marker for several types of cancer. Alternatively spliced transcript variants have been observed for this gene.

UniProt:

Q14764

# **Application Details**

Application Notes:

Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.

Application Details: Western blot, 0.1-0.5 µg/mL

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL

Immunohistochemistry(Frozen Section), 0.5-1 µg/mL

Immunocytochemistry, 0.5-1  $\mu$ g/mL

Flow Cytometry, 1-3 µg/1x10<sup>6</sup> cells

Direct ELISA, 0.1-0.5 µg/mL

Restrictions:

For Research Use only

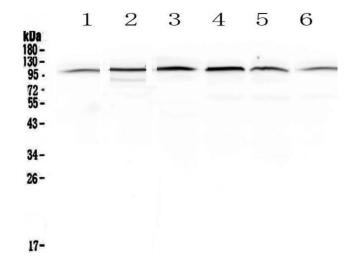
# Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na $_2$ HPO $_4$ , 0.05 mg NaN $_3$ .
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

# Handling

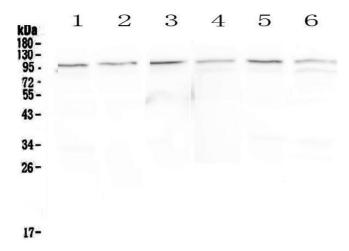
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month.
	It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing
	and thawing.

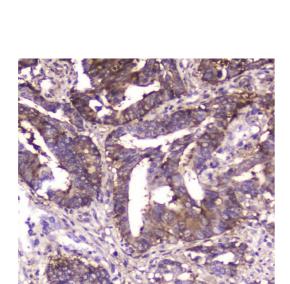
#### **Images**



#### **Western Blotting**

Image 1. Western blot analysis of MVP using anti-MVP antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human PANC-1 whole cell lysates, Lane 5: human SGC-7901 whole cell lysates, Lane 6: human MDA-MB-231 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MVP antigen affinity purified polyclonal antibody (Catalog # ) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MVP at approximately 99KD. The expected band size for MVP is at 99KD.





# **Western Blotting**

Image 2. Western blot analysis of MVP using anti-MVP antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat spleen tissue lysates, Lane 2: rat lung tissue lysates, Lane 3: rat kidney tissue lysates, Lane 4: mouse spleen tissue lysates, Lane 5: mouse lung tissue lysates, Lane 6: mouse kidney tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MVP antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MVP at approximately 99KD. The expected band size for MVP is at 99KD.

#### **Immunohistochemistry**

**Image 3.** IHC analysis of MVP using anti-MVP antibody . MVP was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti-MVP Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog #SA1022) with DAB as the chromogen.

Please check the product details page for more images. Overall 6 images are available for ABIN569289	7.
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