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MVD Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6717c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P53602
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18656
Calculated MW	43405
Antigen Region	164-193

Additional Information

Gene ID	4597
Other Names	Diphosphomevalonate decarboxylase, Mevalonate (diphospho)decarboxylase, MDDase, Mevalonate pyrophosphate decarboxylase, MVD, MPD
Target/Specificity	This MVD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 164-193 amino acids from the Central region of human MVD.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MVD Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MVD
Synonyms	MPD {ECO:0000303|PubMed:14972328}
Function	Catalyzes the ATP dependent decarboxylation of (R)-5-

diphosphomevalonate to form isopentenyl diphosphate (IPP). Functions in the mevalonate (MVA) pathway leading to isopentenyl diphosphate (IPP), a key precursor for the biosynthesis of isoprenoids and sterol synthesis.

Cellular Location Cytoplasm.

Tissue Location Expressed in heart, skeletal muscle, lung, liver, brain, pancreas, kidney and placenta.

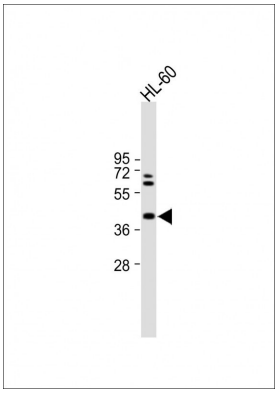
Background

The enzyme mevalonate pyrophosphate decarboxylase catalyzes the conversion of mevalonate pyrophosphate into isopentenyl pyrophosphate in one of the early steps in cholesterol biosynthesis. It decarboxylates and dehydrates its substrate while hydrolyzing ATP.

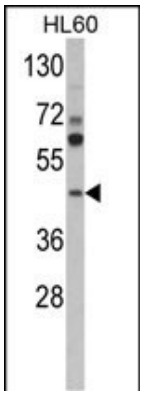
References

Voynova,N.E., Arch. Biochem. Biophys. 480 (1), 58-67 (2008)
Hogenboom,S., Mol. Genet. Metab. 81 (3), 216-224 (2004)
Wadhwa,R., Biochem. Biophys. Res. Commun. 302 (4), 735-742 (2003)

Images

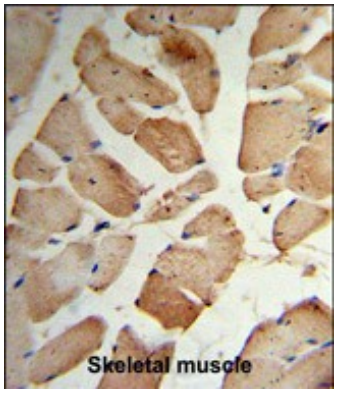


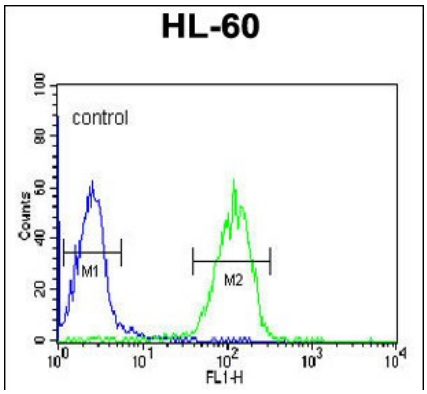
All lanes : Anti-MVD Antibody (Center) at 1:1000 dilution Lane 1: HL-60 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 43kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of MVD Antibody (Center)(Cat. #AP6717c) in HL60 cell line lysates (35ug/lane). MVD (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human Skeletal muscle reacted with MVD Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





MVD Antibody (Center) (Cat. #AP6717c) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.