For Research Use Only

CD146/MCAM Polyclonal antibody

Catalog Number:17564-1-AP Featured Product 23 Publications

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Basic Information

Catalog Number:
17564-1-AP

Size:
150ul , Concentration: 550 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG11762

GenBank Accession Number:
BC056418

GeneID (NCBI):
4162

Full Name:
melanoma cell adhesion molecule

Calculated MW:
646 aa, 72 kDa

Observed MW:
113-120 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:2000-1:10000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:200-1:600
IF 1:50-1:500

Applications

Tested Applications:
FC, IF, IHC, IP, WB, ELISA

Cited Applications:
Cell treatment, FC, IF, IHC, IP, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, A375 cells, mouse lung tissue, HUVEC cells, HepG2 cells

IP : HeLa cells, HepG2 cells

IHC : human ovary tumor tissue, human brain tissue, human heart tissue, human kidney tissue, human lung tissue, human placenta tissue, human spleen tissue, human testis tissue

IF : HUVEC cells, HeLa cells

Background Information

CD146, also known as melanoma cell adhesion molecule (MCAM) or MUC18, originally identified as a biomarker of melanoma progression, is a transmembrane glycoprotein of 113-130 kDa, belonging to the immunoglobulin (Ig) superfamily (PMID: 8378324; 25993332). Structurally, it consists of five Ig domains, a transmembrane domain, and a cytoplasmic region. In normal adult tissue, CD146 is primarily expressed by vascular endothelium and smooth muscle. CD146 is a key cell adhesion protein in vascular endothelial cell activity and angiogenesis, and has been used as marker of circulating endothelium cells (CECs) (PMID: 19356677). In addition to the membrane-anchored form of CD146, a soluble form of CD146 (sCD146, 105 kDa) has also been found in human plasma and in the supernatant of cultured human endothelial cells (PMID: 9462829; 19229070; 16374253; 14597988).

Notable Publications

Author	Pubmed ID	Journal	Application
Peter Genovese	34551191	J Tissue Eng Regen Med	WB, IHC
Hao Zhang	36093059	iScience	WB,IHC,IF
Zuping Wu	36068594	Stem Cell Res Ther	FC

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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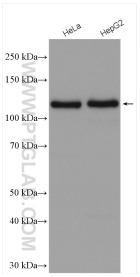
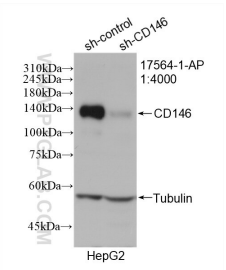
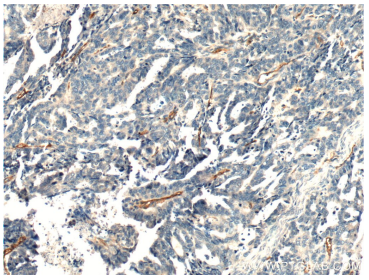
Selected Validation Data



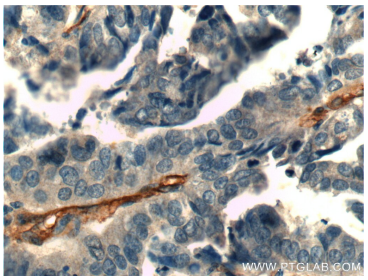
Various lysates were subjected to SDS PAGE followed by western blot with 17564-1-AP (CD146/MCAM antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



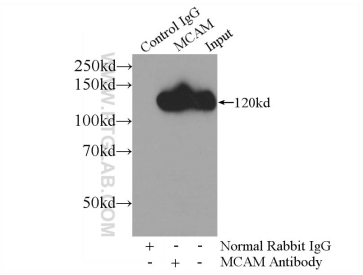
WB result of CD146/MCAM antibody (17564-1-AP; 1:4000; incubated at room temperature for 1.5 hours) with sh-Control and sh-CD146/MCAM transfected HepG2 cells.



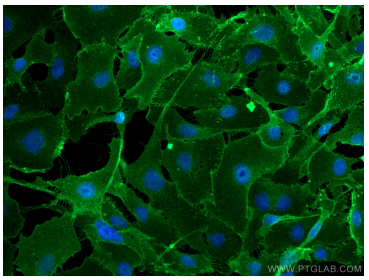
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 17564-1-AP (CD146/MCAM antibody at dilution of 1:600 (under 10x lens).



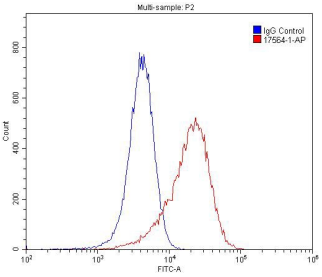
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 17564-1-AP (CD146/MCAM antibody at dilution of 1:600 (under 40x lens).



IP Result of anti-CD146/MCAM (IP:17564-1-AP, 4ug; Detection:17564-1-AP 1:1500) with HeLa cells lysate 4000ug.



Immunofluorescent analysis of (4% PFA) fixed HUVEC cells using CD146/MCAM antibody (17564-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10^6 HUVEC cells were stained with 0.2ug CD146/MCAM antibody (17564-1-AP, red) and control antibody (blue). Fixed with 4% PFA blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.