

For Research Use Only

# CD146/MCAM Monoclonal antibody

Catalog Number: 66153-1-Ig **3 Publications**



## Basic Information

<b>Catalog Number:</b> 66153-1-Ig	<b>GenBank Accession Number:</b> BC056418	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 1053 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 4162	<b>CloneNo.:</b> 4D8A9
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P43121	<b>Recommended Dilutions:</b> WB 1:2000-1:20000 IHC 1:1000-1:4000 IF-P 1:1000-1:4000 IF/ICC 1:250-1:1000
<b>Isotype:</b> IgG1	<b>Full Name:</b> melanoma cell adhesion molecule	
<b>Immunogen Catalog Number:</b> AG11855	<b>Calculated MW:</b> 646 aa, 72 kDa	
	<b>Observed MW:</b> 120 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, IF-P, ELISA	<b>Positive Controls:</b> WB : HepG2 cells, HeLa cells, A375 cells, L02 cells, HUVEC cells, human placenta tissue IHC : human liver cancer tissue, human placenta tissue, human rectal cancer tissue IF-P : human liver cancer tissue, human placenta tissue IF/ICC : HUVEC cells,
<b>Cited Applications:</b> WB, IHC	
<b>Species Specificity:</b> human	
<b>Cited Species:</b> human	

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

## 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). This antibody detects a band at approximately 120 kDa that corresponds to the molecular weight of glycosylated CD146. Treatment of lysates of HepG2 cells and L02 cells with PNGase F, which removes oligosaccharides from N-linked glycoproteins, led to a down-shift of the detected band.

## Notable Publications

Author	Pubmed ID	Journal	Application
Xun Xi	33865812	Exp Cell Res	FC
Han-Wen Ding	39397344	Ultrastruct Pathol	IHC
Yue Cheng	37315748	Cell Signal	WB

## Storage

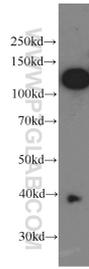
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

**\*\*\* 20ul sizes contain 0.1% BSA**

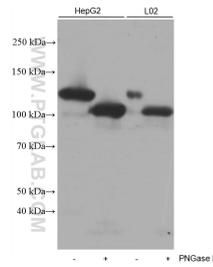
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

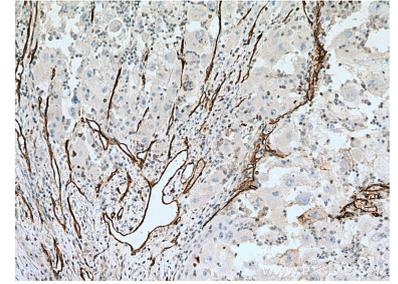
## Selected Validation Data



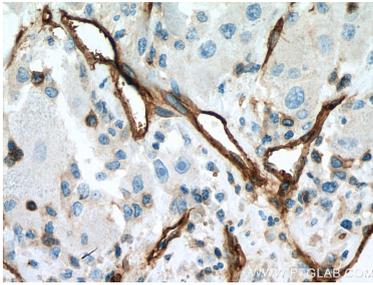
A375 cells were subjected to SDS PAGE followed by western blot with 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



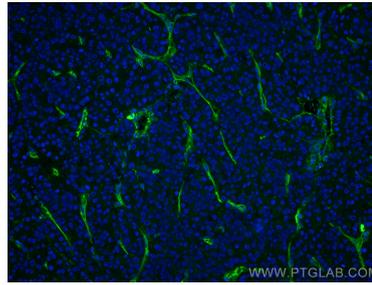
Untreated and PNGase F-treated lysates of HepG2 cells and L02 cells were subjected to SDS PAGE followed by western blot with 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. PNGase F was obtained from Atagenix (cat.NO. ata808).



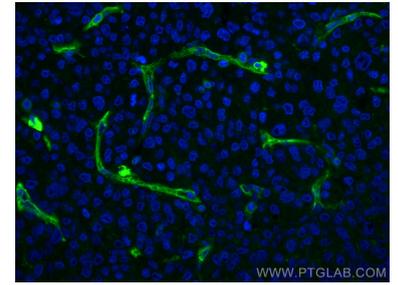
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



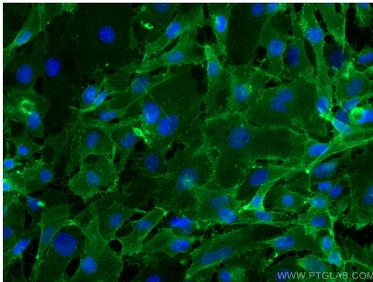
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



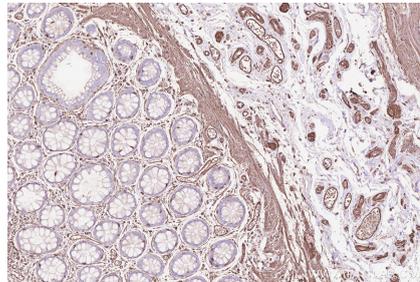
Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using CD146/MCAM antibody (66153-1-Ig, Clone: 4D8A9) at dilution of 1:2000 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



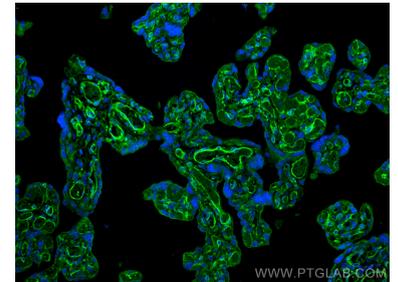
Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using CD146/MCAM antibody (66153-1-Ig, Clone: 4D8A9) at dilution of 1:2000 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed HUVEC cells using CD146/MCAM antibody (66153-1-Ig, Clone: 4D8A9) at dilution of 1:500 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human rectal cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:16000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded human placenta tissue using CD146/MCAM antibody (66153-1-Ig, Clone: 4D8A9) at dilution of 1:800 and CoraLite@488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).