

Basic Information

Catalog Number: 66153-1-Ig	GenBank Accession Number: BC056418	Purification Method: Protein G purification
Size: 1053 μ g/ml	GeneID (NCBI): 4162	CloneNo.: 4D8A9
Source: Mouse	UNIPROT ID: P43121	Recommended Dilutions: WB 1:2000-1:20000 IHC 1:1000-1:4000 IF 1:1000-1:4000
Isotype: IgG1	Full Name: melanoma cell adhesion molecule	
Immunogen Catalog Number: AG11855	Calculated MW: 646 aa, 72 kDa	
	Observed MW: 120 kDa	

Applications

Tested Applications: FC, IF/ICC, IF-P, IHC, WB, ELISA	Positive Controls: WB : HepG2 cells, HeLa cells, A375 cells, L02 cells, HUVEC cells, human placenta tissue IHC : human liver cancer tissue, human placenta tissue IF : human liver cancer tissue, HUVEC cells
Cited Applications: FC, WB	
Species Specificity: human	
Cited Species: 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
Yue Cheng	37315748	Cell Signal	WB

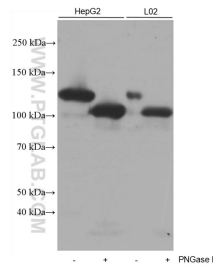
Storage

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

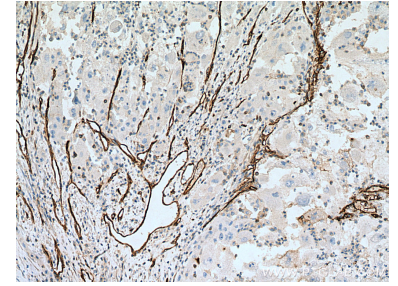
Selected Validation Data



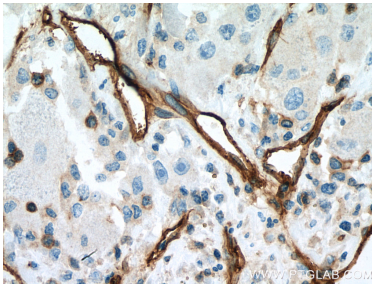
A375 cells were subjected to SDS PAGE followed by western blot with 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



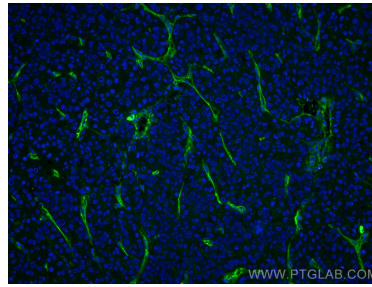
Untreated and PNGase F-treated lysates of HepG2 cells and L02 cells were subjected to SDS PAGE followed by western blot with 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. PNGase F was obtained from Atagenix (cat.NO. ata808).



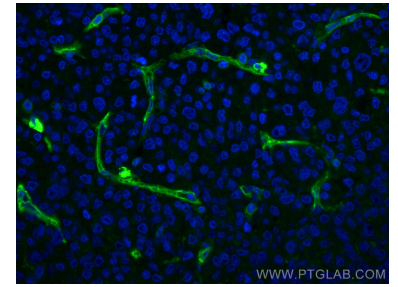
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



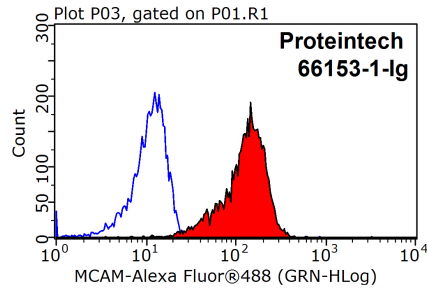
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



1×10^6 HeLa cells were stained with 0.2ug CD146/MCAM antibody (66153-1-Ig, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L) with dilution 1:100.