

AM08137PU-N**Monoclonal Antibody to CD146 - Purified**

Alternate names:	A32, CD146, Cell surface glycoprotein P1H12, MCAM, MUC18, Melanoma cell adhesion molecule, Melanoma-associated antigen MUC18, S-endo 1 endothelial-associated antigen
Quantity:	0.5 mg
Concentration:	0.5 mg/ml
Background:	<p>CD146 belongs to the immunoglobulin supergene family with five immunoglobulin like domains (V-V-C2-C2-C2), a transmembrane region and a 63 residue cytoplasmic tail. The protein is a membrane glycoprotein that functions as a Ca²⁺ independent cell adhesion molecule involved in heterophilic cell to cell interactions. CD146 has a molecular size of 130 kDa in its reduced form (118 kDa unreduced), and N linked glycosylation accounts for fifty percent of the apparent molecular weight. In some cells the molecule carries a sulfate 3 glucuronyl moiety.</p> <p>Expression of the molecule was shown in a relatively limited spectrum of normal human tissues (endothelium, smooth muscle, and subpopulations of activated T cells) and malignant neoplasm (melanoma and breast carcinoma). The lineage specific expression pattern of CD146 can be useful in the differential diagnosis of certain lesions including melanomas and various types of gestational trophoblastic lesions. CD146 expression can promote tumor progression in human melanoma, through enhanced interaction between melanoma cells and endothelial cells. However, in breast carcinoma, CD146 may act as a tumor suppressor. Overexpression of CD146 in breast carcinoma cells results in a more cohesive cell growth and in the formation of smaller tumors in nude mice. During implantation and placentation, CD146 is expressed by the intermediate trophoblast in the placental site and binds to its putative receptor in uterine smooth muscle cells thus limiting trophoblastic invasion in the myometrium. Monoclonal antibody specific for CD146 is an important tool for the identification and isolation of cells expressing CD146.</p>
Uniprot ID:	P43121
NCBI:	NP_006491.2
GeneID:	4162
Host / Isotype:	Mouse / IgG2b
Recommended Isotype Controls:	SM12P, AM03110PU-N
Clone:	c264
Immunogen:	Pooled Ed15 and Ed16 thymocytes from H.B15, H.B19 and H.B21 chicken embryos.
Format:	State: Liquid purified Ig fraction. Buffer System: 100 mM Borate Buffered Saline, pH 8.2. No preservatives or amine-containing buffer salts added.

Applications: **Flow Cytometry:** < / = 1 µg/10e6 cells. (Ref.1)
Immunoprecipitation. (Ref.1)
Immunohistochemistry (Acetone-Fixed, Frozen Tissue Sections). (Ref.2)
 Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognizes Chicken MCAM, Mr 98 kDa (protein core ~84 kDa).
Species: Chicken.
 Other species not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
 Avoid repeated freezing and thawing.
 Shelf life: one year from despatch.

General Readings: 1. Vainio, O., D. Dunon, F. Aissi, J.-P. Dangy, K.M. McNagny, and B.A. Imhof. 1996. HEMCAM, an adhesion molecules expressed by c-kit+ hemopoietic progenitors. J. Cell. Biol. 135:1655-1668.
 2. Vainio, O. 1998. Personal communication.

Pictures: **Immunofluorescent Staining:**
 Thymocytes from a young chicken were isolated and incubated with purified Mouse anti-Chicken MCAM. The cells were then stained with Goat anti-Mouse IgG2b-FITC and analyzed on a FACScan(TM) flow cytometer (BDB, San Jose, CA). Amount Used: 1 µg/10e6 cells.

