

**SM1860F****Monoclonal Antibody to CD146 - FITC**

<b>Alternate names:</b>	A32, CD146, Cell surface glycoprotein P1H12, MCAM, MUC18, Melanoma cell adhesion molecule, Melanoma-associated antigen MUC18, S-endo 1 endothelial-associated antigen
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.1 mg/ml
<b>Background:</b>	CD146 is a member of the immunoglobulin superfamily, expressed by all endothelial cells and by melanoma cells. CD146 appears to act as an adhesion molecule. Expression in melanoma may be linked to disease progression.
<b>Uniprot ID:</b>	<a href="#">P43121</a>
<b>NCBI:</b>	<a href="#">NP_006491.2</a>
<b>GeneID:</b>	<a href="#">4162</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Recommended Isotype Controls:</b>	SM10F (for use in human samples)
<b>Clone:</b>	OJ79c
<b>Immunogen:</b>	Recombinant Human MUC18 (D1-D5) Fc protein. Spleen cells from immunised mice were fused with cells of the mouse Sp2/0 Ag.14 myeloma cell line.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction. <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> PBS <b>Preservatives:</b> 0.09% Sodium Azide <b>Stabilizers:</b> 1% BSA <b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer 1
<b>Applications:</b>	<b>Flow Cytometry:</b> Use 10 µl of neat-1/10 diluted CD146 antibody to label 10 <sup>6</sup> cells in 100 µl. Clone OJ79c (Purified antibody <i>Cat.-No.</i> SM1860P/PT) has been successfully used in ELISA and Immunohistochemistry on Frozen Sections. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognises the 118 kD cell surface glycoprotein CD146, also known as MUC18, Mel-CAM and S-endo. CD146 is a member of the immunoglobulin superfamily, expressed by all endothelial cells and by melanoma cells. <b>Species:</b> Human and Pig. Other species not tested.

- Storage:** Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
- Product Citations:** **Purchased from Acris:**
1. Möbius-Winkler S, Hilberg T, Menzel K, Golla E, Burman A, Schuler G, et al. Time-dependent mobilization of circulating progenitor cells during strenuous exercise in healthy individuals. *J Appl Physiol* (1985). 2009 Dec;107(6):1943-50. doi: 10.1152/jappphysiol.00532.2009. Epub 2009 Oct 1. PubMed PMID: 19797690.
- General Readings:**
1. Kuzu I, Bicknell R, Fletcher CD, Gatter KC. Expression of adhesion molecules on the endothelium of normal tissue vessels and vascular tumors. *Lab Invest*. 1993 Sep;69(3):322-8. PubMed PMID: 7690867.
  2. Crisan M, Yap S, Casteilla L, Chen CW, Corselli M, Park TS, et al. A perivascular origin for mesenchymal stem cells in multiple human organs. *Cell Stem Cell*. 2008 Sep 11;3(3):301-13. doi: 10.1016/j.stem.2008.07.003. PubMed PMID: 18786417.
  3. Iohara K, Zheng L, Wake H, Ito M, Nabekura J, Wakita H, et al. A novel stem cell source for vasculogenesis in ischemia: subfraction of side population cells from dental pulp. *Stem Cells*. 2008 Sep;26(9):2408-18. doi: 10.1634/stemcells.2008-0393. Epub 2008 Jun 26. PubMed PMID: 18583536.
  4. Park, T.S. et al. (2010) Placental Perivascular Cells for Human Muscle Regeneration. *Stem Cells Dev*. Oct 5. [Epub ahead of print].
  5. Smith K, Malatesti N, Cauchon N, Hunting D, Lecomte R, van Lier JE, et al. Mono- and tri-cationic porphyrin-monoclonal antibody conjugates: photodynamic activity and mechanism of action. *Immunology*. 2011 Feb;132(2):256-65. doi: 10.1111/j.1365-2567.2010.03359.x. Epub 2010 Oct 29. PubMed PMID: 21039468.
  6. James AW, Zara JN, Zhang X, Askarinam A, Goyal R, Chiang M, et al. Perivascular stem cells: a prospectively purified mesenchymal stem cell population for bone tissue engineering. *Stem Cells Transl Med*. 2012 Jun;1(6):510-9. doi: 10.5966/sctm.2012-0002. Epub 2012 Jun 11. PubMed PMID: 23197855.
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  9. Boneberg EM, Illges H, Legler DF, Fürstenberger G. Soluble CD146 is generated by ectodomain shedding of membrane CD146 in a calcium-induced, matrix metalloprotease-dependent process. *Microvasc Res*. 2009 Dec;78(3):325-31. doi: 10.1016/j.mvr.2009.06.012. Epub 2009 Jul 15. PubMed PMID: 19615385.
  10. Murakami M, Imabayashi K, Watanabe A, Takeuchi N, Ishizaka R, Iohara K, et al. Identification of novel function of vimentin for quality standard for regenerated pulp tissue. *J Endod*. 2012 Jul;38(7):920-6. doi: 10.1016/j.joen.2012.01.010. Epub 2012 Mar 15. PubMed PMID: 22703654.
  11. Nielsen CT, Østergaard O, Johnsen C, Jacobsen S, Heegaard NH. Distinct features of

circulating microparticles and their relationship to clinical manifestations in systemic lupus erythematosus. *Arthritis Rheum.* 2011 Oct;63(10):3067-77. doi: 10.1002/art.30499. PubMed PMID: 21702008.

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13. Iversen LV, Ostergaard O, Nielsen CT, Jacobsen S, Heegaard NH. A heparin-based method for flow cytometric analysis of microparticles directly from platelet-poor plasma in calcium containing buffer. *J Immunol Methods.* 2013 Feb 28;388(1-2):49-59. doi: 10.1016/j.jim.2012.12.001. Epub 2012 Dec 12. PubMed PMID: 23246793.

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