

1P-274-T100

Monoclonal Antibody to CD147 Phycoerythrin (PE) conjugated (100 tests)

Clone:	MEM-M6/1
Isotype:	Mouse IgG1
Specificity:	<p>The antibody MEM-M6/1 recognizes an epitope in the N-terminal Ig domain (D1) of CD147 (Neurothelin), a 50-60 kDa type I transmembrane glycoprotein primarily expressed on all leukocytes, red blood cells, platelets and endothelial cells; it is not expressed by resting lymphocytes.</p> <p>The antibody MEM-M6/1 is a high-affinity antibody capable of binding to unstimulated peripheral blood T cells.</p>
Immunogen:	Protein A-CR purified soluble recombinant form of CD147, CD147Rg, which consists of the cDNA coding for the hinge region, CH2-and CH3 domain of human IgG1 (CD147Rg is secreted by transfectants as a dimer).
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	<p>Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.</p> <p>Do not use after expiration date stamped on vial label.</p> <p>Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.</p>
Usage:	<p>The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.</p> <p>The content of a vial (2 ml) is sufficient for 100 tests.</p>
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>CD147 (basigin, neurothelin, OX-47, 5A11, CE9, M6) also known as EMMPRIN (extracellular matrix metalloproteinase inducer) or TCSF (tumour cell-derived collagenase-stimulatory factor) is an ubiquitously expressed cell surface protein with multiple glycosylated forms. The highest level of CD147 expression is on metabolically active cells, such as lymphoblasts, inflammatory cells, brown adipocytes and malignant tumour cells. CD147 has multiple functions, including facilitating of cell surface expression of monocarboxylate transporter proteins and extracellular matrix metalloproteinases, regulation of integrin functions, it plays roles in cell development and activation, fetal development or retinal function.</p>

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Kirk P, Wilson MC, Heddle C, Brown MH, Barclay AN, Halestrap AP: CD147 is tightly associated with lactate transporters MCT1 and MCT4 and facilitates their cell surface expression. *EMBO J.* 2000 Aug 1;19(15):3896-904.
- *Wilson MC, Meredith D, Fox JE, Manoharan C, Davies AJ, Halestrap AP: Basigin (CD147) is the target for organomercurial inhibition of monocarboxylate transporter isoforms 1 and 4: the ancillary protein for the insensitive MCT2 is EMBIGIN (gp70). *J Biol Chem.* 2005 Jul 22;280(29):27213-21.
- *Xu D, Hemler ME: Metabolic activation-related CD147-CD98 complex. *Mol Cell Proteomics.* 2005 Aug;4(8):1061-71.
- *Iacono KT, Brown AL, Greene MI, Saouaf SJ: CD147 immunoglobulin superfamily receptor function and role in pathology. *Exp Mol Pathol.* 2007 Dec;83(3):283-95.
- *Ruiz S, Castro-Castro A, Bustelo XR: CD147 Inhibits the Nuclear Factor of Activated T-cells by Impairing Vav1 and Rac1 Downstream Signaling. *J Biol Chem.* 2008 Feb 29;283(9):5554-66.
- *Melchior A, Denys A, Deligny A, Mazurier J, Allain F: Cyclophilin B induces integrin-mediated cell adhesion by a mechanism involving CD98-dependent activation of protein kinase C-delta and p44/42 mitogen-activated protein kinases. *Exp Cell Res.* 2008 Feb 1;314(3):616-28.
- *Schmidt R, Bültmann A, Fischel S, Gillitzer A, Cullen P, Walch A, Jost P, Ungerer M, Tolley ND, Lindemann S, Gawaz M, Schömig A, May AE. Extracellular matrix metalloproteinase inducer (CD147) is a novel receptor on platelets, activates platelets, and augments nuclear factor kappaB-dependent inflammation in monocytes. *Circ Res.* 2008 Feb 15;102(3):302-9.
- *Koch C, Staffler G, Huttinger R, Hilgert I, Prager E, Cerny J, Steinlein P, Majdic O, Horejsi V, Stockinger H.: T cell activation-associated epitopes of CD147 in regulation of the T cell response, and their definition by antibody affinity and antigen density. *Int Immunol.* 1999 May;11(5):777-86.

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