

1F-274-T100

Monoclonal Antibody to CD147 Fluorescein (FITC) conjugated (100 tests)

Clone: MEM-M6/1

Isotype: Mouse IgG1

Specificity: 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.

The antibody MEM-M6/1 is a high-affinity antibody capable of binding to

unstimulated peripheral blood T cells.

Regulatory Status: RUO

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 Fluorescein isothiocyanate (FITC) under

optimum conditions. The reagent is free of unconjugated FITC and adjusted for

direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: 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.

The content of a vial (2 ml) is sufficient for 100 tests.

Expiration: See vial label

See vial label

Lot Number:

Background: 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.



PRODUCT DATA SHEET

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.

*lacono 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.

*Schatzlmaier P, Supper V, Göschl L, Zwirzitz A, Eckerstorfer P, Ellmeier W, Huppa JB, Stockinger H: Rapid multiplex analysis of lipid raft components with single-cell resolution. Sci Signal. 2015 Sep 22;8(395):rs11

*Ohradanova-Repic A, Machacek C, Charvet C, Lager F, Le Roux D, Platzer R, Leksa V, Mitulovic G, Burkard TR, Zlabinger GJ, Fischer MB, Feuillet V, Renault G, Blüml S, Benko M, Suchanek M, Huppa JB, Matsuyama T, Cavaco-Paulo A, Bismuth G, Stockinger H: Extracellular Purine Metabolism Is the Switchboard of Immunosuppressive Macrophages and a Novel Target to Treat Diseases With Macrophage Imbalances. Front Immunol. 2018 Apr 27;9:852.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.