EXBIO Antibodies

PRODUCT DATA SHEET

1B-274-C100

Monoclonal Antibody to CD147 Biotin conjugated (0.1 mg)

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.

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 Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.

Usage: Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry.
Suggested working dilution is 1:250. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.

Expiration: See vial label

Lot Number: See vial label

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.

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

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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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