

## TECHNICAL DATA SHEET

### CyFlow™ CD147 Alexa Fluor™ 488 Anti-Hu; Clone MEM-M6/1

**REF** AX229947

**For Research Use Only.**  
**Not for use in diagnostic or therapeutic procedures.**

### Specifications

|                                    |                                                                                                                                                                                                              |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Antigen</b>                     | CD147                                                                                                                                                                                                        |
| <b>Alternative Names</b>           | Basigin, BSG, M6, EMMPRIN, 5F7, TCSF                                                                                                                                                                         |
| <b>Clone</b>                       | MEM-M6/1                                                                                                                                                                                                     |
| <b>Clonality</b>                   | monoclonal                                                                                                                                                                                                   |
| <b>Format</b>                      | Alexa Fluor™ 488                                                                                                                                                                                             |
| <b>Host / Isotype</b>              | Mouse / IgG1                                                                                                                                                                                                 |
| <b>Species Reactivity</b>          | Human                                                                                                                                                                                                        |
| <b>Negative Species Reactivity</b> | —                                                                                                                                                                                                            |
| <b>Quantity</b>                    | 100 tests                                                                                                                                                                                                    |
| <b>Immunogen</b>                   | 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) |

#### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

## Specificity

The mouse monoclonal antibody MEM-M6/1 recognizes an epitope in the N-terminal Ig domain (D1) of CD147 antigen, 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.

## Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 4 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

## Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

## Storage and Stability

|                  |                                                                               |
|------------------|-------------------------------------------------------------------------------|
| <b>Storage</b>   | Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze. |
| <b>Stability</b> | Do not use after expiration date stamped on vial label.                       |

## Background Information

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 tumor 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.

## References

- 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

---

### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

- definition by antibody affinity and antigen density. *Int Immunol.* 1999 May; 11(5):777-86. < PMID: 10330283 >
- 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. < PMID: 10921872 >
  - 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. < PMID: 15917240 >
  - Xu D, Hemler ME: Metabolic activation-related CD147-CD98 complex. *Mol Cell Proteomics.* 2005 Aug; 4(8):1061-71. < PMID: 15901826 >
  - 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. < PMID: 17945211 >
  - 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. < PMID: 18054915 >
  - 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. < PMID: 18048771 >
  - 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. < PMID: 18160397 >

---

The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services).

---

**Contact Information:**

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

This product is provided under an intellectual property license from Life Technologies Corporation. The transfer of this product is conditioned on the buyer using the purchased product solely in research conducted by the buyer, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or [outlicensing@lifetech.com](mailto:outlicensing@lifetech.com).

---

---

**Contact Information:**

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)