

## TECHNICAL DATA SHEET

### CyFlow™ CD148 Biotin Anti-Hu; Clone MEM-CD148/05

**REF** AE191755

**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

### Specifications

<b>Antigen</b>	CD148
<b>Alternative Names</b>	DEP-1, HPTP-a, SCC1
<b>Clone</b>	MEM-CD148/05
<b>Clonality</b>	monoclonal
<b>Format</b>	Biotin
<b>Host / Isotype</b>	Mouse / IgG2b
<b>Species Reactivity</b>	Human
<b>Negative Species Reactivity</b>	—
<b>Quantity [Concentration]</b>	0.1 mg [ 1 mg/ml ]
<b>Immunogen</b>	Human recombinant CD148 (amino acids 1-444)

### Specificity

The mouse monoclonal antibody MEM-CD148/05 recognizes CD148 antigen, a highly glycosylated up to 250 kDa receptor-like protein tyrosin phosphatase expressed mainly in lymphocytes, myeloid cells and epithelial cells.

#### 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)

## Application

The reagent is designed for indirect immunofluorescence analysis by Flow Cytometry. Working concentrations should be determined by the investigator.

Other usages may be determined from the scientific literature.

## Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH  $\approx$ 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

CD148 (HPTP-eta, DEP-1) is a transmembrane protein tyrosin phosphatase containing eight fibronectin type III extracellular domains. This protein is known to inhibit transduction of mitogenic signals in non-hematopoietic cells (fibroblasts, epithelial cells), and signal transduction downstream of T cell receptor, however, it also augments immunoreceptor signaling in B cells and macrophages via dephosphorylating C-terminal tyrosine of Src-family tyrosine kinases. CD148 expression increases after in vitro activation of peripheral blood leukocytes. It can be also used as marker of the most mature human thymocytes, and leukemic cells corresponding to this stadium of thymocyte differentiation. In contrast, in mice the CD148 expression sharply drops through the double positive stage to the single positive thymocytes.

## References

- Stepanek O, Kalina T, Draber P, Skopcova T, Svojgr K, Angelisova P, Horejsi V, Weiss A, Brdicka T: Regulation of Src family kinases involved in T cell receptor signaling by protein-tyrosine phosphatase CD148. J Biol Chem. 2011 Jun 24; 286(25):22101-12. < PMID: 21543337 >

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

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