

1P-697-T100

Monoclonal Antibody to CD148 Phycoerythrin (PE) conjugated (100 tests)

Clone: MEM-CD148/05

Isotype: Mouse IgG2b

Specificity: The mouse monoclonal antibody MEM-CD148/05 recognizes CD148, a highly

glycosylated up to 250 kDa receptor-like protein tyrosin phosphatase expressed

mainly in lymphocytes, myeloid cells and epithelial cells.

Regulatory Status: RUO

Immunogen: Human recombinant CD148 (amino acids 1-444)

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 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

10 μ l reagent / 100 μ l of whole blood or 10 $^{\circ}$ cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD148 (also known as HPTP-eta or 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 leucocytes. 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.

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