

1P-208-T100

## Monoclonal Antibody to CD9 Phycoerythrin (PE) conjugated (100 tests)

Clone: MEM-61

**Isotype:** Mouse IgG1

Specificity: The antibody MEM-61 recognizes an epitope on second extracellular domain

(EC2) of CD9 antigen, a 24 kDa transmembrane protein expressed on platelets, monocytes, pre-B lymphocytes, granulocytes and activated T lymphocytes. HLDA

VI; WS Code P P-15

Regulatory Status: RUO

**Immunogen:** Pre-B cell line NALM-6.

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

20 µl reagent / 100 µl of whole blood or 10° cells in a suspension.

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

**Expiration:** See vial label

Lot Number: See vial label

Background: CD9 belongs to proteins of tetraspanin family that orchestrate

cholesterol-associated tetraspanin-enriched signaling microdomains within the plasma membrane, forming complexes with each other as well as with integrins, membrane-anchored growth factors and other proteins. CD9 is involved in cell motility, osteoclastogenesis, neurite outgrowth, myotube formation, and sperm-egg fusion, plays roles in cell attachment and proliferation and is necessary for association of heterologous MHC II molecules on the dendritic cell plasma membrane which is important for effective T cell stimulation. CD9 is also

considered as metastasis suppressor in solid tumors.



## PRODUCT DATA SHEET

## References:

\*Saito Y, Tachibana I, Takeda Y, Yamane H, He P, Suzuki M, Minami S, Kijima T, Yoshida M, Kumagai T, Osaki T, Kawase I. Absence of CD9 enhances adhesion-dependent morphologic differentiation, survival, and matrix metalloproteinase-2 production in small cell lung cancer cells. Cancer Res. 2006 Oct 1;66(19):9557-65.

\*Israels SJ, McMillan-Ward EM: Platelet tetraspanin complexes and their association with lipid rafts. Thromb Haemost. 2007 Nov;98(5):1081-7.

\*Kim YJ, Yu JM, Joo HJ, Kim HK, Cho HH, Bae YC, Jung JS: Role of CD9 in proliferation and proangiogenic action of human adipose-derived mesenchymal stem cells. Pflugers Arch. 2007 Nov;455(2):283-96.

\*Unternaehrer JJ, Chow A, Pypaert M, Inaba K, Mellman I: The tetraspanin CD9 mediates lateral association of MHC class II molecules on the dendritic cell surface. Proc Natl Acad Sci U S A. 2007 Jan 2;104(1):234-9.

\*Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

\*Lafleur MA, Xu D, Hemler ME: Tetraspanin proteins regulate membrane type-1 matrix metalloproteinase-dependent pericellular proteolysis. Mol Biol Cell. 2009 Apr;20(7):2030-40.

\*Singh AB, Sugimoto K, Dhawan P, Harris RC: Juxtacrine activation of EGFR regulates claudin expression and increases transepithelial resistance. Am J Physiol Cell Physiol. 2007 Nov;293(5):C1660-8.

\*Stöckl J, Majdic O, Fischer G, Maurer D, Knapp W: Monomorphic molecules function as additional recognition structures on haptenated target cells for HLA-A1-restricted, hapten-specific CTL. J Immunol. 2001 Sep 1;167(5):2724-33.

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