

TECHNICAL DATA SHEET

CyFlow™ CD9 FITC Anti-Hu; Clone MEM-61

REF CP638591

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

Specifications

Antigen	CD9
Alternative Names	MRP-1, P24
Clone	MEM-61
Clonality	monoclonal
Format	FITC
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	Pre-B cell line NALM-6

Specificity

The mouse monoclonal 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.

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Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (2 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

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

Background Information

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.

References

- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): Leucocyte Typing VI. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- 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. < PMID: 11509616 >
- 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,

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- survival, and matrix metalloproteinase-2 production in small cell lung cancer cells. *Cancer Res.* 2006 Oct 1; 66(19):9557-65. < PMID: 17018612 >
- 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 USA.* 2007 Jan 2; 104(1):234-9. < PMID: 17190803 >
 - Israels SJ, McMillan-Ward EM: Platelet tetraspanin complexes and their association with lipid rafts. *Thromb Haemost.* 2007 Nov; 98(5):1081-7. < PMID: 18000614 >
 - 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. < PMID: 17668233 >
 - 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. < PMID: 17855771 >
 - 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. < PMID: 19211836 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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