

TECHNICAL DATA SHEET

CyFlow™ CD105 PE Anti-Ms; Clone MJ7/18

REF AY012062

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD105
Alternative Names	Endoglin
Clone	MJ7/18
Clonality	monoclonal
Format	PE
Host / Isotype	Rat / IgG2a
Species Reactivity	Mouse
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [0.5 mg/ml]
Immunogen	Inflamed mouse skin

Specificity

The rat monoclonal antibody MJ7/18 recognizes CD105 antigen, a 90 kDa type I homodimerizing membrane glycoprotein expressed on vascular endothelial cells (small and large vessels), activated

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

monocytes and tissue macrophages, stromal cells of certain tissues including bone marrow, pre-B lymphocytes in fetal (bone?) marrow and erythroid precursors in fetal and adult bone marrow.

Application

The reagent is designed for Flow Cytometry analysis. 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

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

CD105 (Endoglin) is a homodimeric transmembrane glycoprotein serving in presence of TGF β R-2 as a receptor for TGF β -1 and TGF β -3. CD105 is highly expressed on endothelial cells and promotes angiogenesis during wound healing, infarcts and in a wide range of tumours and its gene expression is stimulated by hypoxia. CD105 prevents apoptosis in hypoxic endothelial cells and also antagonizes the inhibitory effects of TGF β -1 on vascular endothelial cell growth and migration. Normal cellular levels of CD105 are required for formation of new blood vessels.

References

- Herouet C, Cottin M, LeClaire J, Enk A, Rousset F: Contact sensitizers specifically increase MHC class II expression on murine immature dendritic cells. In Vitro Mol Toxicol. 2000 Summer; 13(2):113-23. < PMID: 11031322 >
- Cho SK, Bourdeau A, Letarte M, Zúñiga-Pflücker JC: Expression and function of CD105 during the onset of hematopoiesis from Flk1(+) precursors. Blood. 2001 Dec 15; 98(13):3635-42. < PMID: 11739167 >

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

- Warrington K, Hillarby MC, Li C, Letarte M, Kumar S: Functional role of CD105 in TGF-beta1 signalling in murine and human endothelial cells. *Anticancer Res.* 2005 May-Jun; 25(3B):1851-64. < PMID: 16158917 >
- Fonsatti E, Nicolay HJ, Altomonte M, Covre A, Maio M: Targeting cancer vasculature via endoglin/CD105: a novel antibody-based diagnostic and therapeutic strategy in solid tumours. *Cardiovasc Res.* 2010 Apr 1; 86(1):42625. < PMID: 19812043 >
- Rosu-Myles M, She YM, Fair J, Muradia G, Mehic J, Menendez P, Prasad SS, Cyr TD: Identification of a candidate proteomic signature to discriminate multipotent and non-multipotent stromal cells. *PLoS One.* 2012; 7(6):e38954. < PMID: 23266721 >
- Dassler K, Roohi F, Lohrke J, Ide A, Remmele S, Hütter J, Pietsch H, Pison U, Schütz G: Current limitations of molecular magnetic resonance imaging for tumors as evaluated with high-relaxivity CD105-specific iron oxide nanoparticles. *Invest Radiol.* 2012 Jul; 47(7):383-91. < PMID: 22659596 >

The Safety Data Sheet for this product is available at 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