

Monoclonal Antibody to CD105 / Endoglin - PE

Alternate names:	END, ENG, HHT1, ORW, ORW1
Catalog No.:	AM03092RP-N
Quantity:	100 Tests
Background:	CD105 (Endoglin) is a homodimeric transmembrane glycoprotein serving in presence of TGFbR-2 as a receptor for TGFb-1 and TGFb-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 antagonises the inhibitory effects of TGFb-1 on vascular endothelial cell growth and migration. Normal cellular levels of CD105 are required for formation of new blood vessels.
Uniprot ID:	P17813
NCBI:	9606
Host / Isotype:	Mouse / IgG2a
Clone:	MEM-229
Immunogen:	Recombinant <i>Vaccinia</i> virus containing the Human CD105 (L-isoform) cDNA
Format:	State: Liquid purified Ig fraction Purification: Size-Exclusion Chromatography Buffer System: Phosphate buffered saline (PBS) containing 15 mM Sodium Azide and 0.2% (w/v) high-grade protease free BSA as a stabilizing agent. Label: PE – Conjugated with R-Phycoerythrin
Applications:	Flow Cytometry analysis of Human blood cells using 20 µl reagent/100 µl of whole blood or 10e6 cells in a suspension. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes CD105 (Endoglin), a 180 kDa type I integral membrane homodimer glycoprotein expressed on vascular endothelial cells (small and large vessels), activated monocytes and tissue macrophages, stromal cells of certain tissues including bone marrow, pre-B lymphocytes in fetal marrow and erythroid precursors in fetal and adult bone marrow; it is also present on syncytiotrophoblast on placenta throughout pregnancy.
Species Reactivity:	Tested: Human and Porcine.
Add. Information:	The content of a vial (2 ml) is sufficient for 25 tests.
Storage:	Store the antibody at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Shelf life: one year from despatch.

For research and in vitro use only. Not for diagnostic or therapeutic work.
Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- General Readings:**
1. Zhu Y, Sun Y, Xie L, Jin K, Sheibani N, Greenberg DA. Hypoxic induction of endoglin via mitogen-activated protein kinases in mouse brain microvascular endothelial cells. *Stroke*. 2003 Oct;34(10):2483-8. Epub 2003 Aug 28. PubMed PMID: 12947156.
 2. Li C, Issa R, Kumar P, Hampson IN, Lopez-Novoa JM, Bernabeu C, et al. CD105 prevents apoptosis in hypoxic endothelial cells. *J Cell Sci*. 2003 Jul 1;116(Pt 13):2677-85. Epub 2003 May 13. PubMed PMID: 12746487.
 3. Guo B, Slevin M, Li C, Parameshwar S, Liu D, Kumar P, et al. CD105 inhibits transforming growth factor-beta-Smad3 signalling. *Anticancer Res*. 2004 May-Jun;24(3a):1337-45. PubMed PMID: 15274293.
 4. 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. PubMed PMID: 16158917.
 5. Piao M, Tokunaga O. Significant expression of endoglin (CD105), TGFbeta-1 and TGFbeta R-2 in the atherosclerotic aorta: an immunohistological study. *J Atheroscler Thromb*. 2006 Apr;13(2):82-9. PubMed PMID: 16733295.

Pictures: Immunofluorescence staining of an infarcted porcine heart with anti-CD105 (MEM-229; green); cell nuclei stained with DAPI (blue).

