

11-298-C100

Monoclonal Antibody to CD105 Purified Antibody (0.1 mg)

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| Clone: | MEM-226 |
| Isotype: | Mouse IgG2a |
| Specificity: | The antibody MEM-226 reacts with CD105 (Endoglin), a 180 kDa type I homodimerizing membrane 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. |
| Immunogen: | Recombinant Vaccinia virus containing the human CD105 cDNA. |
| Species Reactivity: | Human |
| Application: | Flow Cytometry Recommended dilution: 2 µg/ml Immunoprecipitation Western Blotting Application note: Non-reducing conditions. |
| Purity: | > 95% (by SDS-PAGE) |
| Purification: | Purified from ascites by protein-A affinity chromatography. |
| Concentration: | 1 mg/ml |
| Storage Buffer: | Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 |
| Storage / Stability: | Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles. |
| Expiration: | See vial label |
| Lot Number: | See vial label |
| Background: | CD105 (Endoglin) is a homodimeric transmembrane glycoprotein serving in presence of TGFbetaR-2 as a receptor for TGFbeta-1 and TGFbeta-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 TGFbeta-1 on vascular endothelial cell growth and migration. Normal cellular levels of CD105 are required for formation of new blood vessels. |

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

*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.

*Li C, Issa R, Kumar P, Hampson IN, Lopez-Novoa JM, Bernabeu C, Kumar S: CD105 prevents apoptosis in hypoxic endothelial cells. *J Cell Sci*. 2003 Jul 1;116(Pt 13):2677-85.

*Guo B, Slevin M, Li C, Parameshwar S, Liu D, Kumar P, Bernabeu C, Kumar S: CD105 inhibits transforming growth factor-beta-Smad3 signalling. *Anticancer Res*. 2004 May-Jun;24(3a):1337-45.

*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.

*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.

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