



11-453-C100

## Monoclonal Antibody to CD105 Purified Antibody (0.1 mg)

|                             |   |
|-----------------------------|---|
| <b>Clone:</b>               | MEM-229   |
| <b>Isotype:</b>             | Mouse IgG2a   |
| <b>Specificity:</b>         | The antibody MEM-229 recognizes CD105 (Endoglin), a 90 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.  |
| <b>Regulatory Status:</b>   | RUO   |
| <b>Immunogen:</b>           | Recombinant Vaccinia virus containing the human CD105 (L-isoform) cDNA.   |
| <b>Species Reactivity:</b>  | Human, Porcine  |
| <b>Negative Species:</b>    | Canine (Dog), Equine (Horse)  |
| <b>Application:</b>         | Flow Cytometry<br>Recommended dilution: 10 µg/ml<br>Positive control: Kg1 human acute myelogenous leukemia cell line<br>Western Blotting<br>Application note: Non-reducing conditions.<br>Immunohistochemistry (frozen sections)<br>Recommended dilution: 1:200<br>Application note: acetone fixation<br>Immunocytochemistry  |
| <b>Purity:</b>              | > 95% (by SDS-PAGE)   |
| <b>Purification:</b>        | Purified by protein-A affinity chromatography   |
| <b>Concentration:</b>       | 1 mg/ml   |
| <b>Storage Buffer:</b>      | Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4   |
| <b>Storage / Stability:</b> | Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.  |
| <b>Expiration:</b>          | See vial label  |
| <b>Lot Number:</b>          | See vial label  |
| <b>Background:</b>          | 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.
  - \*Plánka L, Necas A, Srnc R, Rauser P, Starý D, Jancár J, Amler E, Filová E, Hlucilová J, Kren L, Gál P: Use of allogenic stem cells for the prevention of bone bridge formation in miniature pigs. *Physiol Res*. 2009;58(6):885-93.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at [www.exbio.cz](http://www.exbio.cz).

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

---

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic  
Tel: +420 261 090 666 | Fax: +420 261 090 660 | [orders@exbio.cz](mailto:orders@exbio.cz) | [www.exbio.cz](http://www.exbio.cz)