MONOCLONAL ANTIBODY TO HUMAN CD105, ENDOGLIN
clone E9

Catalog nr HM2140 (lot number and expiry date are indicated on the label)

Description The monoclonal antibody E9 reacts with Endoglin, a 190 kDa homodimeric transmembrane glycoprotein composed of disulfide-linked subunits. The external domain binds TGF-beta1 and -beta3 isoforms with high affinity. Two different isoforms (L and S) of CD105 with capacity to bind TGF-beta have been characterized, which differ in the amino acid composition of their cytoplasmic tails. Mutations in the gene encoding endoglin have been linked to the human disease hereditary hemorrhagic telangiectasia type 1 (HHT1), a vascular disorder characterized by localized vascular dysplasia and a tendency towards arteriovenous malformations. Mice expressing a single CD105 allele develop external signs of disease similar to human HHT1, supporting the haploinsufficiency model for HHT1. Mice lacking endoglin die from defective angiogenesis characterized by failure of vascular smooth muscle investment of embryonic blood vessels, suggesting a defect in vascular smooth muscle cell development.
Microvessel density (MVD) has been reported to be an independent prognostic indicator of outcome in a variety of human malignancies, with increased MVD correlating with shorter overall and relapse-free survival rates. The MVD counts using anti-CD105 antibody significantly correlated with overall and disease-free survival. Anti-CD105 monoclonal antibody E9 and anti-CD34 monoclonal antibody have been successfully used to quantify MVD in human breast carcinoma. The monoclonal antibody E9, directed against CD105, has also been used as a prognostic marker for primary central nervous system lymphomas.

Species Mouse IgG_1

Formulation 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.

Application The monoclonal antibody E9 can be used for immunohistology on frozen sections, immuno assays as coating and detection, immuno precipitation, Western blotting and flow cytometry. Antibody E9 cannot be used for immunohistology on paraffin sections and for inhibition of biological activity.

Use For immunohistology, flow cytometry and Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

Storage and stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and Federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result with the use of or derivation of this product.

References

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3. Kumar, S et al; Breast carcinoma: vascular density determined using CD105 antibody correlates with tumor prognosis. Cancer Research 1999, *59*: 856
4. Li, C et al; Plasma levels of soluble CD105 correlates with metastasis in patients with breast cancer. Int J Cancer 2000, *89*: 122
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Also available

HM2039	Monoclonal antibody against Human CD31, PECAM-1, clone BV8
HM2131	Monoclonal antibody against Human Carcinoma associated antigen, clone 115D8