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# Product datasheet for AM26235PU-N

## CD105 (ENG) Mouse Monoclonal Antibody [Clone ID: E9]

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | E9 |
| **Applications:** | ELISA, IHC, IP, WB |
| **Recommended Dilution:** | Immunohistochemistry on frozen sections: The typical starting working dilution is 1:50.<br>Flow cytometry: The typical starting working dilution is 1:50.<br>Immunoassays (coating and detection).<br>Immunoprecipitation.<br>Western blot: The typical starting working dilution is 1:50.<br>The antibody cannot be used for immunohistology on paraffin sections and for inhibition of biological activity. |
| **Reactivity:** | Human |
| **Host:** | Mouse |
| **Isotype:** | IgG1 |
| **Clonality:** | Monoclonal |
| **Specificity:** | The monoclonal antibody E9 reacts with Endoglin, a 190 kDa homodimeric transmembrane glycoprotein composed of disulfide-linked subunits. |
| **Formulation:** | PBS<br>State: Purified<br>State: Liquid 0.2 µm filtered Ig fraction<br>Stabilizer: 0.1% bovine serum albumin |
| **Concentration:** | lot specific |
| **Purification:** | Protein G |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store at 2 - 8 °C. |
| **Stability:** | Shelf life: one year from despatch. |
| **Gene Name:** | endoglin |
| **Database Link:** | Entrez Gene 2022 Human<br>P17813 |

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**Background:** Endoglin is 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.

**Synonyms:** ENG, END, HHT1, ORW, ORW1