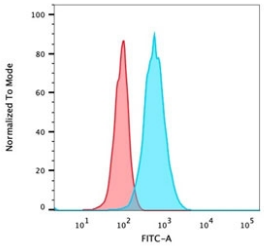
# Endoglin Antibody / CD105 Angiogenesis Marker Antibody [clone ENG/1621] (V8568)

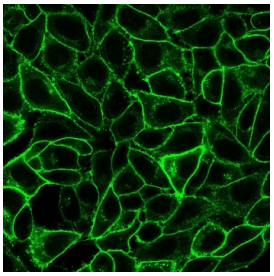
| Catalog No. | Formulation | Size |
|---|---|---|
| V8568-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V8568-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V8568SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

## Bulk quote request

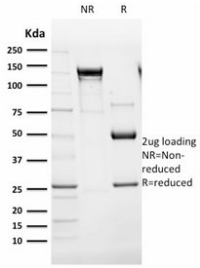
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | ENG/1621 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P17813 |
| **Localization** | Cell surface |
| **Applications** | ELISA : order Ab without BSA for coating<br>Flow Cytometry : 1-2ug/million cells<br>Immunofluorescence : 2-4ug/ml |
| **Limitations** | This Endoglin Antibody / CD105 Angiogenesis Marker Antibody is available for research use only. |




Endoglin Antibody HeLa FACS. Flow cytometry analysis of PFA-fixed human HeLa cells using Endoglin Antibody (clone ENG/1621) shows a clear rightward shift in fluorescence intensity compared to isotype control, indicating CD105 / Endoglin expression on the cell surface, consistent with its role as an angiogenesis-associated endothelial marker.



Endoglin Antibody HeLa IF. Immunofluorescence analysis of PFA-fixed human HeLa cells using Endoglin Antibody (green) demonstrates prominent membranous staining outlining cell borders, consistent with CD105 / Endoglin expression as a cell surface angiogenesis-associated marker.




SDS-PAGE analysis of purified, BSA-free Endoglin antibody (clone ENG/1621) as confirmation of integrity and purity.

## Description

Endoglin (ENG), also known as CD105, is a transmembrane glycoprotein expressed on endothelial cells where it functions as a key regulator of angiogenesis and vascular remodeling. Endoglin Antibody / CD105 Angiogenesis Marker Antibody (clone ENG/1621) targets this protein, which is primarily localized to the cell membrane of endothelial cells, with additional cytoplasmic distribution reflecting receptor synthesis and trafficking. Endoglin antibody, also referred to as CD105 antibody and ENG antibody in the literature, detects an important vascular marker widely used in studies of tumor angiogenesis and endothelial cell biology.

Functionally, Endoglin plays a central role in transforming growth factor beta (TGF-beta) signaling pathways that regulate endothelial cell proliferation, migration, and survival. It acts as a co-receptor within the TGF-beta receptor complex and contributes to the control of angiogenic processes. CD105 expression is particularly elevated in proliferating endothelial cells associated with neovascularization, making it a widely used marker for identifying active angiogenesis in both normal and pathological conditions.

In tumor tissues, CD105-positive endothelial cells are frequently observed within newly formed blood vessels that support tumor growth and progression. This pattern of expression distinguishes Endoglin from other vascular markers, as it preferentially highlights actively proliferating vasculature rather than quiescent vessels. As a result, CD105 is commonly used to assess tumor vascular density and angiogenic activity in cancers such as liver, lung, and bladder carcinoma.

The ENG gene is located on chromosome 9q34.11 and plays a critical role in maintaining vascular integrity. Mutations in ENG are associated with hereditary hemorrhagic telangiectasia, a disorder characterized by abnormal blood vessel formation. Structurally, Endoglin is a homodimeric membrane protein consisting of a large extracellular domain, a transmembrane region, and a short cytoplasmic tail that participates in intracellular signaling. It interacts with TGF-beta receptor components and influences downstream signaling pathways that regulate endothelial cell behavior.

Altered CD105 expression is closely associated with pathological angiogenesis, including cancer, cardiovascular disease, and inflammatory conditions. In oncology, increased Endoglin expression correlates with tumor progression and metastasis due to enhanced vascularization. In inflammatory settings, CD105-positive endothelial cells contribute to tissue repair and immune cell trafficking.

This antibody provides reliable detection of Endoglin / CD105 in endothelial cells associated with angiogenic processes, supporting its use as an angiogenesis marker in immunohistochemistry and related applications. An Endoglin antibody is suitable for detecting this vascular protein in studies of tumor biology, neovascularization, and endothelial cell function.

For broader detection of CD105 as an endothelial marker across applications, see our CD105 antibody.

## Application Notes

Optimal dilution of the Endoglin Antibody / CD105 Angiogenesis Marker Antibody should be determined by the researcher.

## Immunogen

A recombinant extracellular fragment from the human protein was used as the immunogen for the Endoglin antibody.

## Storage

Store the Endoglin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

CD105 antibody, ENG antibody, Endoglin antibody, CD105 angiogenesis antibody, ENG vascular marker antibody