

**CD105/Endoglin Antibody (Center E395)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11336****Specification**

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**CD105/Endoglin Antibody (Center E395) - Product Information**

Application	WB, IHC, FC
Primary Accession	<a href="#">P17813</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	70578

**CD105/Endoglin Antibody (Center E395) - Additional Information****Gene ID 2022**

Positive Control	Western blot: Mouse heart tissue lysate, IHC: mouse heart tissue, FACS: NCI-H292.
Application & Usage	WB: 1:1000, IHC: 1:10 - 1:50, FC: 1:10 - 1:50.

**Other Names**

ENG; END; Endoglin

**Target/Specificity**

CD105

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

In PBS with 0.09% (W/V) sodium azide.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

CD105/Endoglin Antibody (Center E395) is for research use only and not for use in diagnostic or therapeutic procedures.

## CD105/Endoglin Antibody (Center E395) - Protein Information

**Name** ENG

**Synonyms** END

### Function

Vascular endothelium glycoprotein that plays an important role in the regulation of angiogenesis (PubMed:<a href="http://www.uniprot.org/citations/21737454" target="\_blank">21737454</a>, PubMed:<a href="http://www.uniprot.org/citations/23300529" target="\_blank">23300529</a>). Required for normal structure and integrity of adult vasculature (PubMed:<a href="http://www.uniprot.org/citations/7894484" target="\_blank">7894484</a>). Regulates the migration of vascular endothelial cells (PubMed:<a href="http://www.uniprot.org/citations/17540773" target="\_blank">17540773</a>). Required for normal extraembryonic angiogenesis and for embryonic heart development (By similarity). May regulate endothelial cell shape changes in response to blood flow, which drive vascular remodeling and establishment of normal vascular morphology during angiogenesis (By similarity). May play a critical role in the binding of endothelial cells to integrins and/or other RGD receptors (PubMed:<a href="http://www.uniprot.org/citations/1692830" target="\_blank">1692830</a>). Acts as a TGF-beta coreceptor and is involved in the TGF-beta/BMP signaling cascade that ultimately leads to the activation of SMAD transcription factors (PubMed:<a href="http://www.uniprot.org/citations/21737454" target="\_blank">21737454</a>, PubMed:<a href="http://www.uniprot.org/citations/22347366" target="\_blank">22347366</a>, PubMed:<a href="http://www.uniprot.org/citations/23300529" target="\_blank">23300529</a>, PubMed:<a href="http://www.uniprot.org/citations/8370410" target="\_blank">8370410</a>). Required for GDF2/BMP9 signaling through SMAD1 in endothelial cells and modulates TGFB1 signaling through SMAD3 (PubMed:<a href="http://www.uniprot.org/citations/21737454" target="\_blank">21737454</a>, PubMed:<a href="http://www.uniprot.org/citations/22347366" target="\_blank">22347366</a>, PubMed:<a href="http://www.uniprot.org/citations/23300529" target="\_blank">23300529</a>).

### Cellular Location

Cell membrane; Single-pass type I membrane protein

### Tissue Location

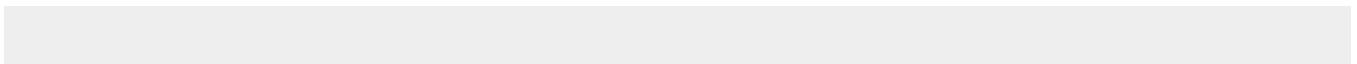
Detected on umbilical vein endothelial cells (PubMed:10625079). Detected in placenta (at protein level) (PubMed:1692830). Detected on endothelial cells (PubMed:1692830)

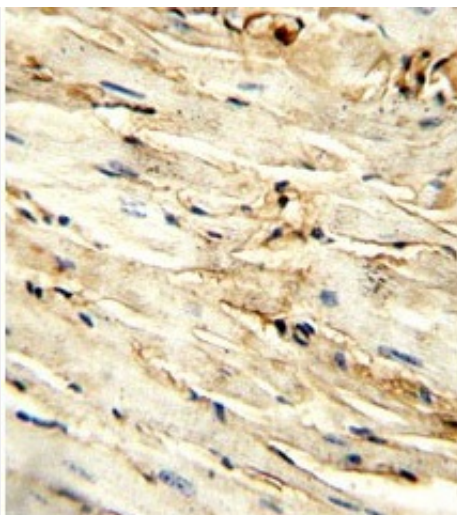
## CD105/Endoglin Antibody (Center E395) - Protocols

Provided below are standard protocols that you may find useful for product applications.

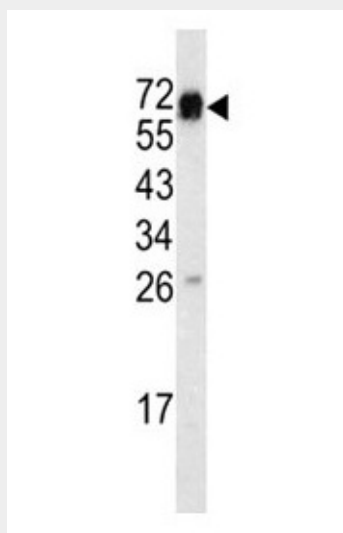
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## CD105/Endoglin Antibody (Center E395) - Images





CD105 antibody (Center E395) immunohistochemistry analysis in formalin fixed and paraffin embedded mouse heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CD105 antibody (Center E395) for immunohistochemistry.



Western blot analysis of CD105 antibody (Center E395) in mouse heart tissue lysates (35 µg/lane). CD105 (arrow) was detected using the purified pAb.

### **CD105/Endoglin Antibody (Center E395) - Background**

Endoglin (ENG, CD105) is an auxiliary receptor for the TGF- $\beta$  receptor complex, functioning in related signaling pathways. Endoglin is a transmembrane protein that exists as a disulfide-linked homodimer. It is mainly expressed in vascular and connective tissues and in endothelial and stromal cells. Upregulated endoglin expression has been reported during wound healing and tumor vascularization, and in inflammatory tissues and developing embryos. Mutations in endoglin have been found to be a causal factor of hereditary hemorrhagic telangiectasia (HHT), a disease characterized by malformation of vascular structure. The importance of this protein for normal and tumor vascular function makes it a good marker for endothelial cell proliferation as well as a potential therapeutic target in cancer.