

## Technical Data Sheet

## Purified Mouse Anti-Human CD105

## Product Information

Material Number:	611315
Alternate Name:	Endoglin
Size:	150 µg
Concentration:	250 µg/ml
Clone:	35/CD105
Immunogen:	Human S-Endoglin aa. 24-144
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Target MW:	95 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

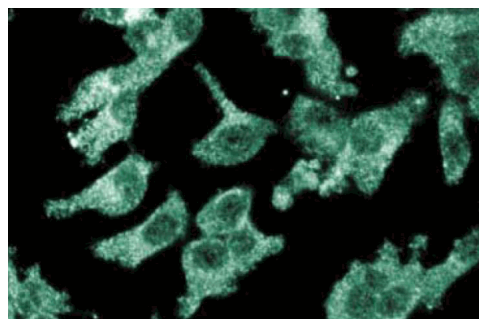
## Description

Endoglin (CD105), a major glycoprotein of human vascular endothelium, is a type I integral membrane protein with a large extracellular region, a hydrophobic transmembrane region, and a short cytoplasmic tail. It also contains an RGD tripeptide that may be important for cellular adhesion. There are two forms of endoglin (S-endoglin and L-endoglin) that differ in the length of their cytoplasmic tails. However, the isoforms may have similar functional activity. When overexpressed in fibroblasts, both form disulfide-linked homodimers via their extracellular domains. Endoglin binds TGF-β1 and TGF-β3 by associating with TGF-β type II receptor and binds BMP-7 by associating with activin type II receptor. Thus, endoglin is an accessory protein of multiple TGF-β superfamily kinase receptor complexes. Loss of function mutations in the human *endoglin* gene cause hereditary hemorrhagic telangiectasia, which is characterized by vascular malformations. Deletion of endoglin in mice leads to death due to defective vascular development. Thus, endoglin is an endothelial specific cell surface protein that may regulate angiogenesis through interactions with TGF-β superfamily kinase receptors.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



**Western blot analysis of CD105 on human endothelial cell lysate.** Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-CD105.



**Immunofluorescent staining of ES2 cells with anti-CD105/endoglin antibody.**

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

## BD Biosciences

[www.bdbiosciences.com](http://www.bdbiosciences.com)

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit [www.bdbiosciences.com/how\\_to\\_order/](http://www.bdbiosciences.com/how_to_order/)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2007 BD



## Application Notes

### Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

## Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References

Barbara NP, Wrana JL, Letarte M. Endoglin is an accessory protein that interacts with the signaling receptor complex of multiple members of the transforming growth factor-beta superfamily. *J Biol Chem.* 1999; 274(2):584-594.(Biology)  
Bellon T, Corbi A, Lastres P. Identification and expression of two forms of the human transforming growth factor-beta-binding protein endoglin with distinct cytoplasmic regions. *Eur J Biochem.* 1993; 23(9):2340-2345.(Biology)  
Gougos A, Letarte M. Primary structure of endoglin, an RGD-containing glycoprotein of human endothelial cells. *J Biol Chem.* 1990; 265(15):8361-8364.(Biology)  
Li DY, Sorensen LK, Brooke BS. Defective angiogenesis in mice lacking endoglin. *Science.* 1999; 284(5419):1534-1537.(Biology)