

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.

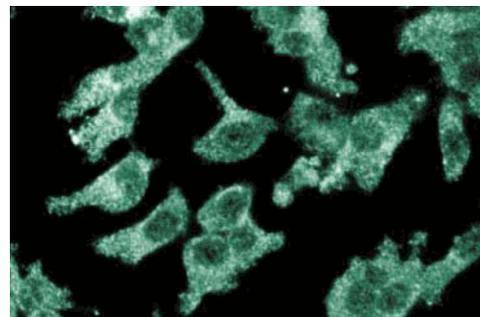
Description

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.

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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 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)
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