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CD105 Antibody (Center E395)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2880C

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P17813
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	70578
Antigen Region	380-409

Additional Information

Gene ID	2022
Other Names	Endoglin, CD105, ENG, END
Target/Specificity	This CD105 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 380-409 amino acids from the Central region of human CD105.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD105 Antibody (Center E395) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ENG
Synonyms	END
Function	Vascular endothelium glycoprotein that plays an important role in the regulation of angiogenesis (PubMed:21737454, PubMed:23300529). Required for normal structure and integrity of adult vasculature (PubMed:7894484).

Regulates the migration of vascular endothelial cells (PubMed:17540773). 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:1692830). 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:21737454, PubMed:22347366, PubMed:23300529, PubMed:8370410). Required for GDF2/BMP9 signaling through SMAD1 in endothelial cells and modulates TGFB1 signaling through SMAD3 (PubMed:21737454, PubMed:22347366, PubMed:23300529).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

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

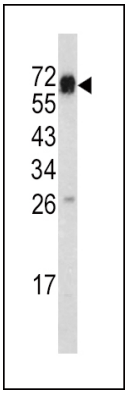
Background

CD105 is a homodimeric transmembrane protein which is a major glycoprotein of the vascular endothelium. This protein is a component of the transforming growth factor beta receptor complex and it binds TGFB1 and TGFB3 with high affinity. Mutations in its gene cause hereditary hemorrhagic telangiectasia, also known as Osler-Rendu-Weber syndrome 1, an autosomal dominant multisystemic vascular dysplasia.

References

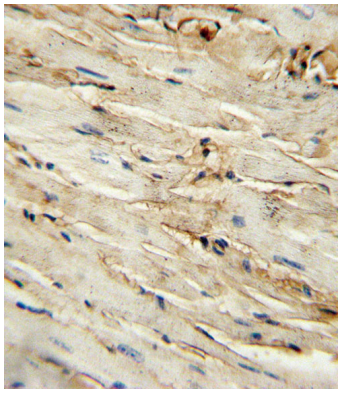
Chen,Y., Ann. Neurol. 66 (1), 19-27 (2009)
Rius,C., Blood 92 (12), 4677-4690 (1998)

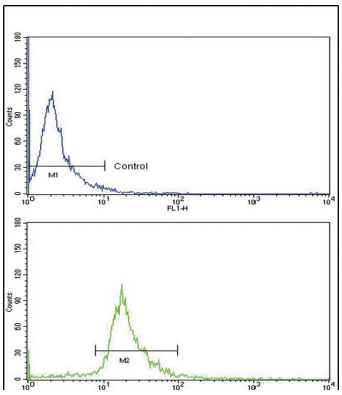
Images



Western blot analysis of CD105 antibody (Center E395) (Cat. #AP2880c) in mouse heart tissue lysates (35ug/lane). CD105 (arrow) was detected using the purified Pab.

CD105 antibody (Center E395) (Cat. #AP2880c) 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. Clinical relevance has not been evaluated.





Flow cytometric analysis of NCI-H292 cells using CD105 Antibody (Center E395)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.