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CD105 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1571a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P17813
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3A9
Isotype	IgG1
Calculated MW	70578
Description	This gene encodes 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 this gene cause hereditary hemorrhagic telangiectasia, also known as Osler-Rendu-Weber syndrome 1, an autosomal dominant multisystemic vascular dysplasia.
Immunogen	Purified recombinant fragment of human CD105 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2022
Other Names	Endoglin, CD105, ENG, END
Dilution	WB~~1/500 - 1/2000 IHC~~1/500 - 1/2000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD105 Antibody 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)

References

1. Int J Cancer. 2009 Feb 1;124(3):664-9. 2. Reprod Sci. 2008 Dec;15(10):1018-26.

Images

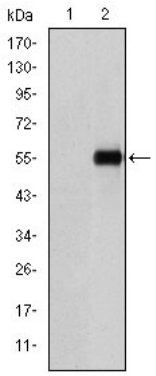

Figure 1: Western blot analysis using CD105 mAb against HEK293 (1) and CD105(AA: 331-567)-hIgGFc transfected HEK293 (2) cell lysate.

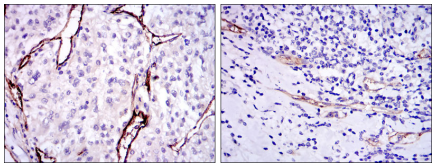

Figure 2: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues (left) and stomach cancer tissues (right) using CD105 mouse mAb with DAB staining.

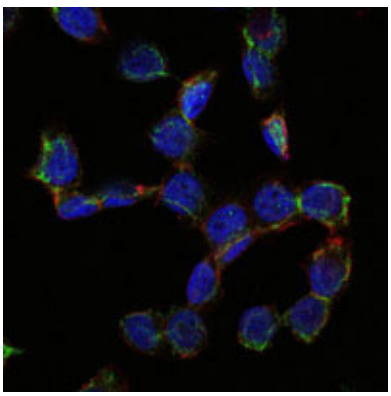

Figure 3: Immunofluorescence analysis of HepG2 cells using CD105 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

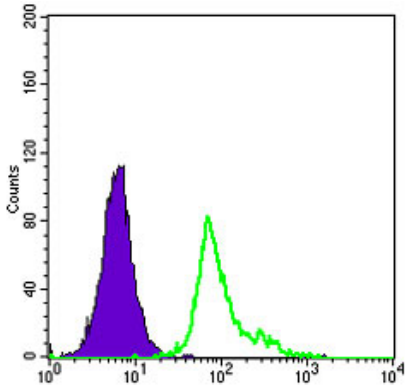

Figure 4: Flow cytometric analysis of HepG2 cells using CD105 mouse mAb (green) and negative control (purple).