10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Endoglin / CD105 Antibody

Mouse Monoclonal Antibody
Catalog # AH13190

Product Information

Application	WB, IF, FC
Primary Accession	P17813
Other Accession	76753
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1
Clone Names	ENG/1326
Calculated MW	70578

Additional Information

Gene ID	2022
Other Names	CD105; END; Endoglin; Eng; HHT1; S-endoglin
Application Note	Flow Cytometry (0.5-1ug/million cells in 0.1ml); ,Immunofluorescence (1-2ug/ml); ,Western Blotting (1-2ug/ml for 60 minutes at RT);,Optimal dilution for a specific application should be determined.
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-Endoglin / 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)

Background

CD105/Endoglin is a Type I membrane glycoprotein located on cell surfaces and is part of the TGF-beta receptor complex. This protein has been found on endothelial cells, activated macrophages, fibroblasts, and smooth-muscle cells. Endoglin has a role in the development of the cardiovascular system and in vascular remodeling. Its expression is regulated during heart development. CD105 is highly expressed in endothelial cells during tumor angiogenesis and inflammation, with weak or negative expression in vascular endothelium of normal tissues. Angiogenesis is a promising prognostic marker in a variety of tumors. Endoglin is a more specific and sensitive marker for tumor angiogenesis than CD31 or CD34, as it labels only newly-formed blood vessels and may serve as a prognostic marker for Prostate Adenocarcinoma, and cancers of the lung, stomach, breast, and brain.

Images



Western Blot of HeLa, A431 and HL-60 Cell Lysates with Endoglin / CD105 Monoclonal Antibody (ENG/1326).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.