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CD105 Rabbit pAb

Catalog # AP99061

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q63961
Other Accession	Q63961
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70021
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse CD105
Epitope Specificity	601-658/658
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBUNIT	Homodimer that forms an heteromeric complex with the signaling receptors for transforming growth factor-beta: TGFBR1 and/or TGFBR2. It is able to bind TGF-beta 1, and 3 efficiently and TGF-beta 2 less efficiently. Interacts with TCTEX1D4. Interacts with ARRB2.
DISEASE	Defects in ENG are the cause of hereditary hemorrhagic telangiectasia type 1 (HHT1) [MIM:187300]; also known as Osler-Rendu-Weber syndrome 1 (ORW1). HHT1 is an autosomal dominant multisystemic vascular dysplasia, characterized by recurrent epistaxis, muco-cutaneous telangiectases, gastro-intestinal hemorrhage, and pulmonary (PAVM), cerebral (CAVM) and hepatic arteriovenous malformations; all secondary manifestations of the underlying vascular dysplasia. Although the first symptom of HHT1 in children is generally nose bleed, there is an important clinical heterogeneity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 to the beta1 and beta3 peptides 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. This gene may also be involved in preeclampsia and several types of cancer. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2013]

Additional Information

Gene ID	13805
Other Names	END; HHT1; ORW1; EGLN_HUMAN; ENG; EGLN_MOUSE; Cell surface MJ7/18 antigen; Edg; CD105; Endo; S-endoglin; endoglin; Osler-Rendu-Weber

	syndrome 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Eng
Synonyms	Edg
Function	Vascular endothelium glycoprotein that plays an important role in the regulation of angiogenesis (PubMed:10625534). Required for normal structure and integrity of adult vasculature (By similarity). Regulates the migration of vascular endothelial cells (PubMed:17540773). Required for normal extraembryonic angiogenesis and for embryonic heart development (PubMed:10625534). May regulate endothelial cell shape changes in response to blood flow, which drive vascular remodeling and establishment of normal vascular morphology during angiogenesis (PubMed:28530658). May play a role in the binding of endothelial cells to integrins. 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:23300529). Required for GDF2/BMP9 signaling through SMAD1 in endothelial cells and modulates TGFB1 signaling through SMAD3 (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Detected on blood vessels (at protein level) (PubMed:8194490). Detected on adult pulmonary artery, capillaries supporting the heart muscle and lung alveolar capillary endothelial cells (PubMed:10625534). Endoglin is restricted to endothelial cells in all tissues except bone marrow and is also found in stromal cells within the connective tissue of intestine, stomach, heart, skeletal muscle, uterus, ovary, oviduct, testis and thymus (PubMed:8194490)

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