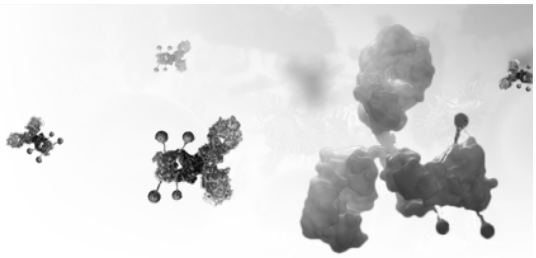

Rat anti Mouse ENG monoclonal antibody, clone 310832 (CABT-L289)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects mouse Endoglin/CD105 in ELISAs and Western blots. In Western blots, this antibody does not cross-react with recombinant human Endoglin.
Target	Endoglin/CD105
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Endoglin/CD105, Glu27-Gly581, Accession #Q8K100
Isotype	IgG2A
Source/Host	Rat
Species Reactivity	Mouse
Clone	310832
Purification	Protein A or G purified from hybridoma culture supernatant
Conjugate	Unconjugated
Applications	ELISA(Cap), WB
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Format	Lyophilized; Small package size(SP): Liquid
Size	100 µg, 500 µg
Buffer	PBS with Trehalose
Preservative	None

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Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.
Ship	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

BACKGROUND

Introduction	Endoglin (CD105) is a 90 kDa type I transmembrane glycoprotein of the zona pellucida (ZP) family of proteins. Endoglin and beta glycan/T beta b RIII are type III receptors for TGF-beta b superfamily ligands, sharing 71% amino acid (aa) identity within the transmembrane (TM) and cytoplasmic domains. Endoglin is highly expressed on proliferating vascular endothelial cells, chondrocytes, and syncytiotrophoblasts of term placenta, with lower amounts on hematopoietic, mesenchymal and neural crest stem cells, activated monocytes, and lymphoid and myeloid leukemic cells. Mouse Endoglin cDNA encodes 653 aa including a 26 aa signal sequence, a 555 aa extracellular domain (ECD) with an orphan domain and a two-part ZP domain, a TM domain and a 47 aa cytoplasmic domain. A mouse isoform with a 35 aa cytoplasmic domain (S-endoglin) can oppose effects of long (L) Endoglin. The mouse Endoglin ECD shares 69%, 84%, 62%, 63%, and 66% aa identity with human, rat, bovine, porcine, and canine Endoglin, respectively. Endoglin homodimers interact with TGF-beta b 1 and TGF-beta b 3 (but not TGF-beta b 2), but only after binding T beta b RII. Similarly, they interact with activin-A and BMP-7 via activin type IIA or B receptors, and with BMP-2 via BMPR-IA/ALK-3 or BMPR-IB/ALK-6. BMP-9, however, is reported to bind Endoglin directly. Endoglin modifies ligand-induced signaling in multiple ways. For example, expression of Endoglin can inhibit TGF-beta b 1 signals but enhance BMP-7 signals in the same myoblast cell line. In endothelial cells, Endoglin inhibits T beta b RI/ALK5, but enhances ALK-1-mediated activation. Deletion of mouse Endoglin causes lethal vascular and cardiovascular defects, and human Endoglin haploinsufficiency can a cause the vascular disorder, hereditary hemorrhagic telangiectasia type I. These abnormalities confirm the essential function of Endoglin in differentiation of smooth muscle, angiogenesis, and neovascularization. In preeclampsia of pregnancy, high levels of proteolytically generated soluble Endoglin and VEGF R1 (sFlt-1), along with low placental growth factor (PlGF), are pathogenic due to anti-angiogenic activity.
Keywords	CD105 antigen;CD105;Endoglin;ENDOsler-Rendu-Weber syndrome 1;ENG;HHT1FLJ41744;ORW;ORW1

GENE INFORMATION

Entrez Gene ID	13850

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