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

Anti-CD105 Picoband Antibody

Catalog # ABO10274

Specification

Anti-CD105 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P17813
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Endoglin(ENG) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CD105 Picoband Antibody - Additional Information

Gene ID 2022

Other Names
Endoglin, CD105, ENG, END

Calculated MW
70578 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Membrane; Single-pass type I membrane protein.

Tissue Specificity
Endoglin is restricted to endothelial cells in all tissues except bone marrow.

Protein Name
Endoglin

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human CD105 (258-297aa YVSWLIDANHNMQIWTTGEYSFKIFPEKNIRGFKLPDTPQ), different from the related mouse sequence by twelve amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-CD105 Picoband Antibody - 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)

Anti-CD105 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot

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

- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CD105 Picoband Antibody - Images

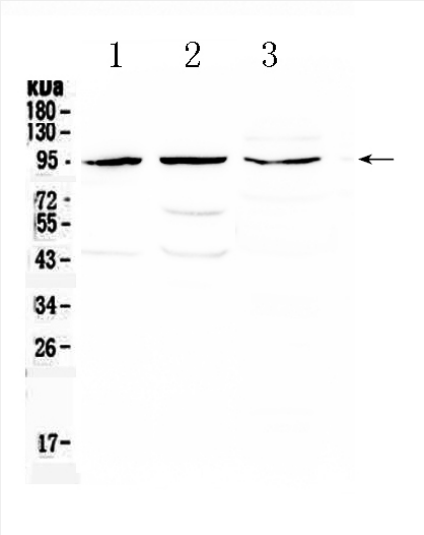

Figure 1. Western blot analysis of CD105 using anti- CD105 antibody (ABO10274). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat lung tissue lysates, Lane 2: mouse lung tissue lysates, Lane 3: HELA whole Cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- CD105 antigen affinity purified polyclonal antibody (Catalog # ABO10274) at 0.5 Î¼g/mL overnight at 4Â°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CD105 at approximately 95KD. The expected band size for CD105 is at 81KD.

Anti-CD105 Picoband Antibody - Background

Endoglin (Osler-Rendu-Weber syndrome 1), CD105, is a type I membrane glycoprotein located on cell surfaces and is a part of the TGF beta receptor complex. Its gene is mapped to human chromosome 8. The protein consists of a homodimer of 180 kDA with disulfide links. It 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 and has been found to be elevated in pregnant women who subsequently develop preeclampsia.