abcam

Product datasheet

Anti-CD105 antibody [EPR19911-220] ab252345

KO VALIDATED Recombinant RabMAb

★★★★★ 2 Abreviews 7 Images

Overview

Product name	Anti-CD105 antibody [EPR19911-220]
Description	Rabbit monoclonal [EPR19911-220] to CD105
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, IP **Unsuitable for:** Flow Cyt or ICC/IF
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa and HUVEC whole cell lysates; Rat spleen lysate. IP: HeLa whole cell lysate. IHC-P: Human liver and kidney tissue; rat kidney tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19911-220

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab252345 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 95, 190 kDa (predicted molecular weight: 71 kDa).
IHC-P	★★★★★ (2)	1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/20.

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

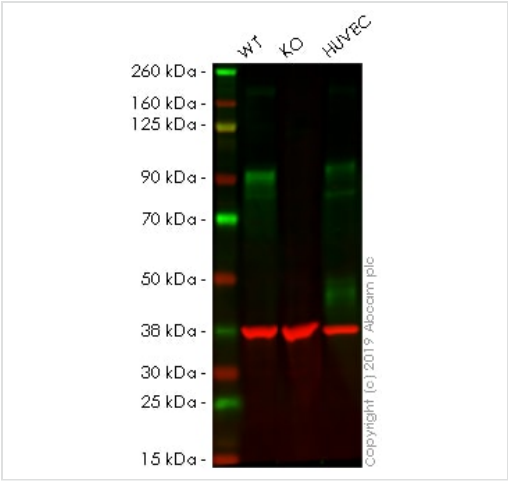
Function Major glycoprotein of vascular endothelium. May play a critical role in the binding of endothelial cells to integrins and/or other RGD receptors.

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

Involvement in disease Defects in ENG are the cause of hereditary hemorrhagic telangiectasia type 1 (HHT1) [MIM:187300, 108010]; 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.

Cellular localization Membrane.

Images



Western blot - Anti-CD105 antibody [EPR19911-220] (ab252345)

All lanes : Anti-CD105 antibody [EPR19911-220] (ab252345) at 1 µg/ml

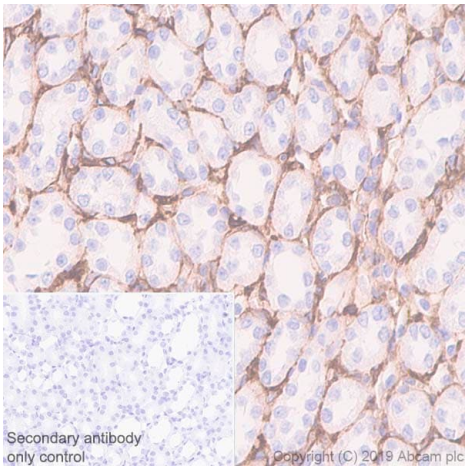
Lane 1 : Wild-type HeLa whole cell lysate
Lane 2 : ENG knockout HeLa whole cell lysate
Lane 3 : HUVEC whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 71 kDa
Observed band size: 95 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab252345 observed at 95 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab252345 was shown to recognize ENG (Endoglin) in wild-type HeLa cells as signal was lost at the expected MW in ENG knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and ENG knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab252345 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1 ug/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



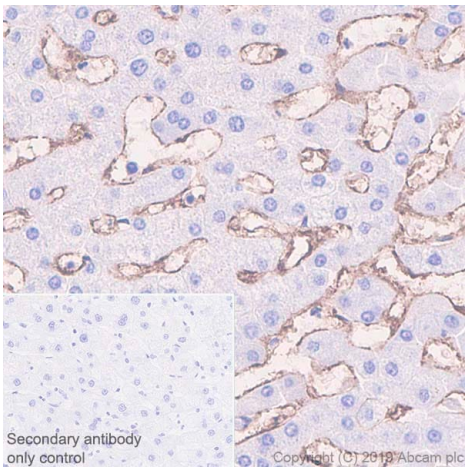
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD105 antibody [EPR19911-220] (ab252345)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling CD105 with ab252345 at 1/2000 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) ready to use. Positive staining on peritubular microvasculature of rat kidney (PMID: 25381426) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) ready to use.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab252345 for 30 mins at RT. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



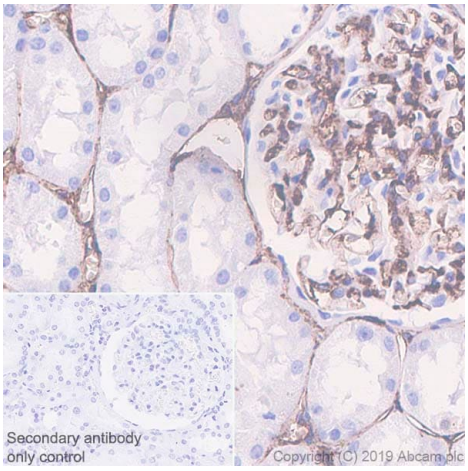
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD105 antibody [EPR19911-220] (ab252345)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling CD105 with ab252345 at 1/2000 dilution, followed by the Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) ready to use. Positive staining on sinusoidal endothelial cells of human liver (PMID: 30563158) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) ready to use.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab252345 for 30 mins at RT. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



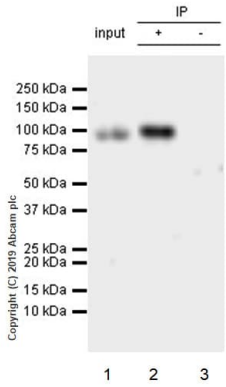
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD105 antibody [EPR19911-220] (ab252345)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling CD105 with ab252345 at 1/2000 dilution, followed by the Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) ready to use. Positive staining on glomerular and peritubular microvasculature of human kidney (PMID: 25381426) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) ready to use.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab252345 for 30 mins at RT. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

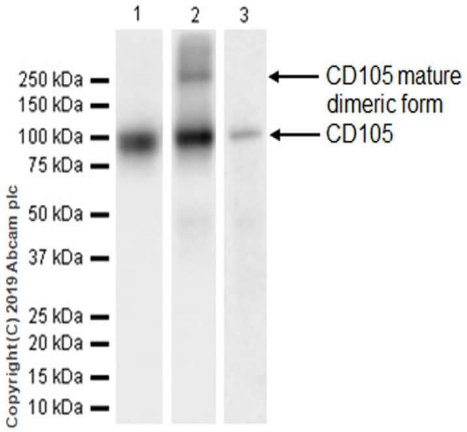


Immunoprecipitation - Anti-CD105 antibody [EPR19911-220] (ab252345)

CD105 was immunoprecipitated from 0.35 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab252345 at 1/20 dilution. Western blot was performed from the immunoprecipitate using ab252345 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.

Lane 1: HeLa whole cell lysate 10 µg (Input).
Lane 2: ab252345 IP in HeLa whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab252345 in HeLa whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 minutes.



Western blot - Anti-CD105 antibody [EPR19911-220] (ab252345)

All lanes : Anti-CD105 antibody [EPR19911-220] (ab252345) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : HUVEC (human umbilical vein endothelial cell line) whole cell lysate
Lane 3 : Rat spleen lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 71 kDa
Observed band size: 190,95 kDa

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure times.

Lane 1: 26 seconds.

Lane 2: 6 seconds.

Lane 3: 3 minutes.

The expression profile / molecular weight observed is consistent with what has been described in the literature (PMID: 12746487; 9872992).

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