

Product datasheet

Anti-CD105 antibody [EPR22811-18] ab231774

Recombinant RabMAb

★★★★★ 1 Abreviews 9 Images

Overview

Product name	Anti-CD105 antibody [EPR22811-18]
Description	Rabbit monoclonal [EPR22811-18] to CD105
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt, ICC/IF, IP, IHC-P, WB
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment within Human CD105 aa 1-600. The exact sequence is proprietary. Database link: P17813
Positive control	WB: HUVEC and U937 whole cell lysate; Human lung and placenta tissue lysate. IHC-P: Human ovarian carcinoma and placenta tissue. ICC/IF: U937 cells. Flow Cyt: HUVEC and U937 cells. IP: HUVEC whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p>

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

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	EPR22811-18
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab231774** 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
Flow Cyt		1/500.
ICC/IF		1/500.
IP		1/30.
IHC-P	★★★★★	1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Predicted molecular weight: 70 kDa.

Target

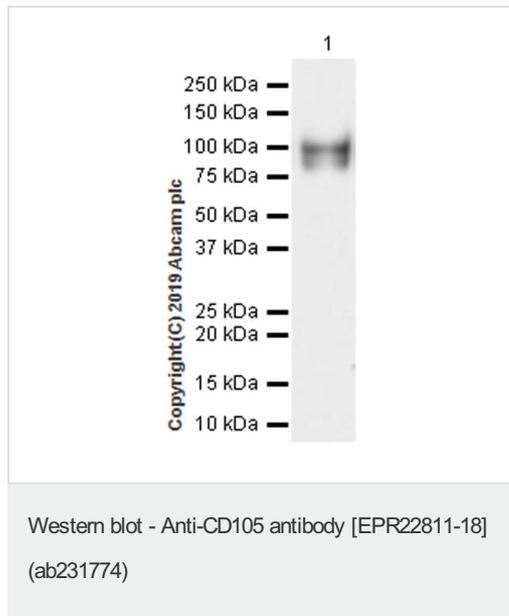
Function	Major glycoprotein of vascular endothelium. May play a critical role in the binding of endothelial cells to integrins and/or other RGD receptors.
Tissue specificity	Endoglin is restricted to endothelial cells in all tissues except bone marrow.
Involvement in disease	Defects in ENG are the cause 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



Anti-CD105 antibody [EPR22811-18] (ab231774) at 1/1000 dilution + U937 (human histiocytic lymphoma monocyte), whole cell lysate 40 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 70 kDa

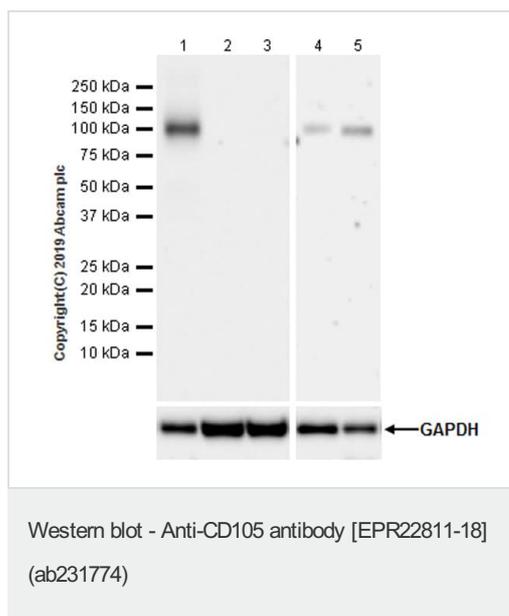
Observed band size: 97 kDa

[why is the actual band size different from the predicted?](#)

Exposure time: 103 seconds

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID: 8932339).



All lanes : Anti-CD105 antibody [EPR22811-18] (ab231774) at 1/1000 dilution

Lane 1 : HUVEC (human umbilical vein endothelial cell), whole cell lysate 20 µg

Lane 2 : Jurkat (human T cell leukemia T lymphocyte), whole cell lysate 20 µg

Lane 3 : Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate 20 µg

Lane 4 : Human lung tissue lysate 20 µg

Lane 5 : Human placenta tissue lysate 20 µg

Secondary

Lanes 1-3 : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lanes 4-5 : VeriBlot for IP Detection Reagent (HRP) (ab131366)

at 1/1000 dilution

Predicted band size: 70 kDa

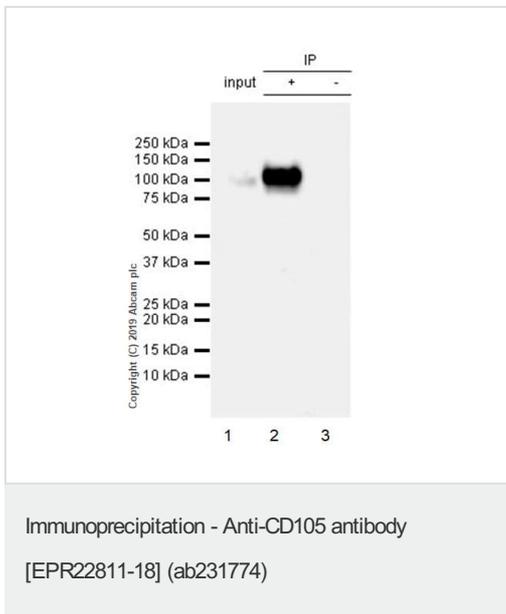
Blocking/Diluting buffer and concentration: 5% NFDm/TBST.

Exposure times: Lanes 1-3: 26 secs; Lanes 4-5: 3 mins.

The molecular weight observed is consistent with what has been described in the literature (PMID: 8932339).

This blot was developed using a higher sensitivity ECL substrate.

Negative control: Jurkat (PMID: 28351936); Raji (PMID: 28351936).



CD105 was immunoprecipitated from 0.35 mg HUVEC (human umbilical vein endothelial cell) whole cell lysate with ab231774 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab231774 1/1000 dilution (0.51 µg/ml). VeriBlot for IP secondary antibody (HRP) (ab131366) was used as the secondary antibody at 1/5000 dilution.

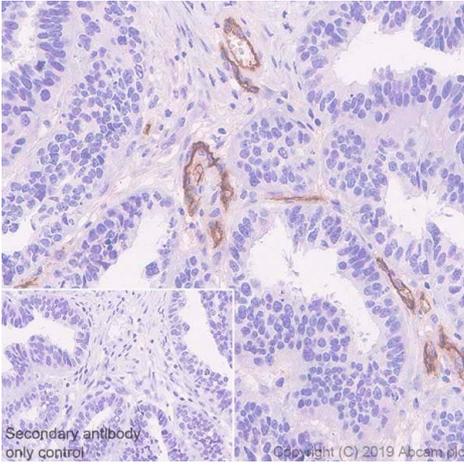
Lane 1: HUVEC (human umbilical vein endothelial cell) whole cell lysate 10µg

Lane 2: ab231774 IP in HUVEC whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab231774 in HUVEC whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

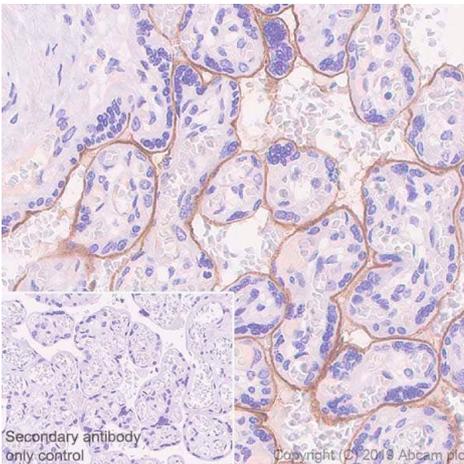
Exposure time: 3 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD105 antibody [EPR22811-18] (ab231774)

Immunohistochemical analysis of paraffin-embedded human ovarian carcinoma tissue labeling CD105 with ab231774 at 1/100 dilution (5.1 µg/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on endothelial cells of human ovarian carcinoma (PMID: 17502949). The section was incubated with ab231774 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins.

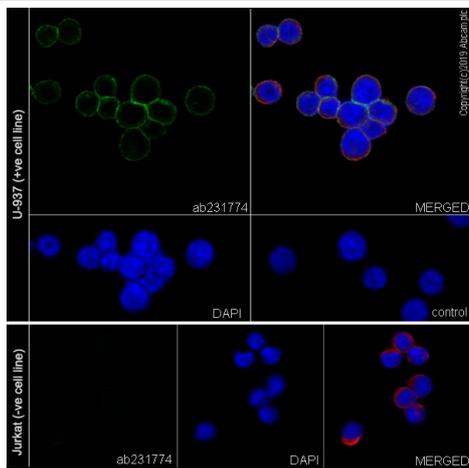
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD105 antibody [EPR22811-18] (ab231774)

Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling CD105 with ab231774 at 1/100 dilution (5.1 µg/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on human placental trophoblasts (PMID: 17956952) is observed. The section was incubated with ab231774 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins.

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

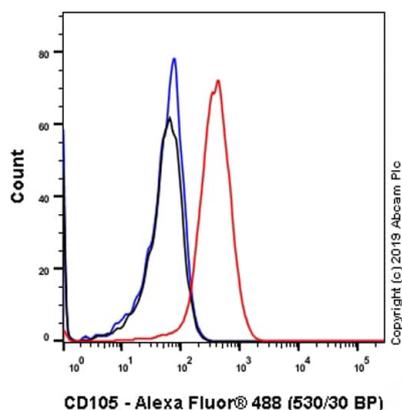


Immunocytochemistry/ Immunofluorescence - Anti-CD105 antibody [EPR22811-18] (ab231774)

Immunofluorescent analysis of 100% methanol-fixed U-937 (human histiocytic lymphoma monocyte) cells labeling CD105 with ab231774 at 1/500 dilution, followed by a [ab150077](#) AlexaFluor[®]488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in U-937 cells is observed. [ab195889](#) Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

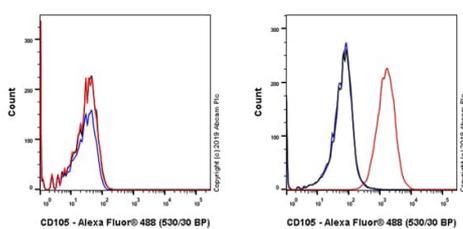
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab150077](#) AlexaFluor[®]488 Goat anti-Rabbit secondary at 1/1000 dilution.

Negative control: Jurkat (PMID: 28351936).



Flow Cytometry - Anti-CD105 antibody [EPR22811-18] (ab231774)

Flow cytometric analysis of U-937 (human histiocytic lymphoma monocyte) cells labeling CD105 with ab231774 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor[®] 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.



Flow Cytometry - Anti-CD105 antibody [EPR22811-18] (ab231774)

Flow cytometric analysis of Jurkat (human T cell leukemia T lymphocyte, Left) / HUVEC (human umbilical vein endothelial cell, Right) cells labeling CD105 with ab231774 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor[®] 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody.

Negative control: Jurkat (PMID: 28351936). Gated on viable cells.

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-CD105 antibody [EPR22811-18] (ab231774)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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