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Product datasheet

Anti-CD105 antibody [MEM-226] ab2529

KO VALIDATED

24 References 6 Images

Overview

Product name	Anti-CD105 antibody [MEM-226]
Description	Mouse monoclonal [MEM-226] to CD105
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, Sandwich ELISA, Flow Cyt, WB
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein (Human). Expressed in vaccinia virus containing CD105 cDNA.
Positive control	ICC/IF: HeLa cells. WB: Human colon tissue lysate. Flow Cyt: U937 cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, 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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
Purity	Protein A purified
Purification notes	Purified from TCS. Purity >95% by SDS-PAGE.
Clonality	Monoclonal
Clone number	MEM-226
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab2529 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
ICC/IF		Use a concentration of 10 µg/ml.
Sandwich ELISA		Use a concentration of 5 µg/ml. Can be paired for Sandwich ELISA with **Rabbit polyclonal to CD105 (ab21224)**. For sandwich ELISA, use this antibody as Capture at 5 µg/ml with **Rabbit polyclonal to CD105 (ab21224)** as Detection.
Flow Cyt		Use a concentration of 1 - 2 µg/ml. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Use under non reducing condition.

Target

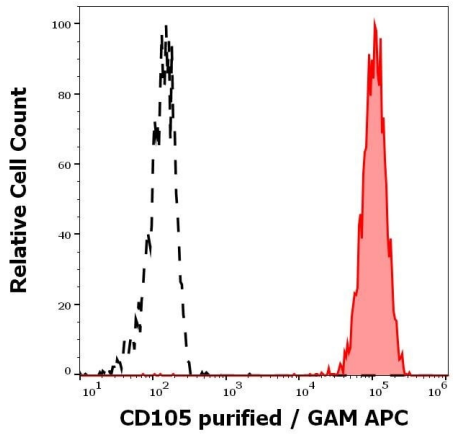
Function Major glycoprotein of vascular endothelium. May play a critical role in the binding of endothelial cells to integrins and/or other RGD receptors.

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.

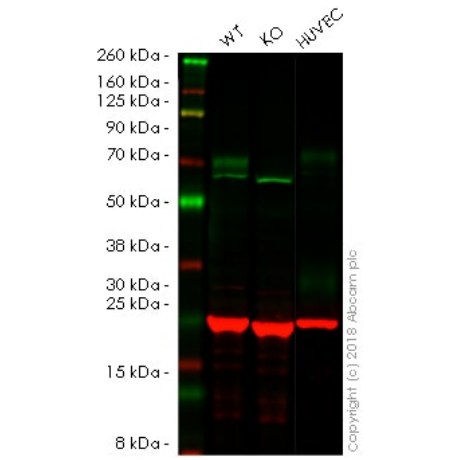
Cellular localization Membrane.

Images



Flow Cytometry - Anti-CD105 antibody [MEM-226] (ab2529)

Flow cytometry analysis showing separation of HUVEC cells stained using ab2529 (concentration in sample 1.67 µg/ml, GAM APC, red-filled) from HUVEC cells unstained by primary antibody (GAM APC, black-dashed).



Western blot - Anti-CD105 antibody [MEM-226] (ab2529)

All lanes : Anti-CD105 antibody [MEM-226] (ab2529) at 1/1000 dilution

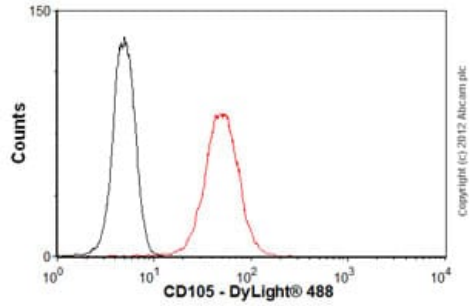
Lane 1 : Wild-type HeLa whole cell lysate
Lane 2 : CD105 knockout HeLa whole cell lysate
Lane 3 : HUVEC whole cell lysate

Lysates/proteins at 20 µg per lane.

Lanes 1 - 3: Merged signal (red and green). Green - ab2529 observed at 70 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab2529 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. Ab2529 and **ab181602** (Rabbit anti-GAPDH loading control)

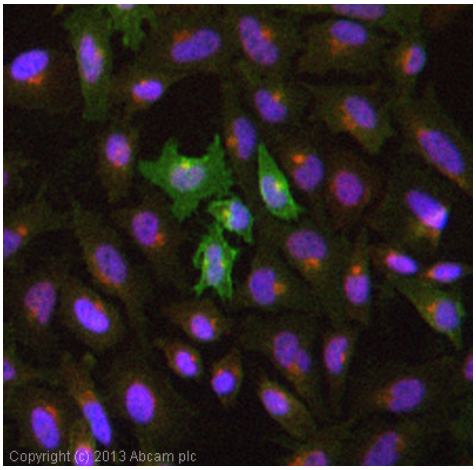
were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed **ab216772** and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed **ab216777** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry - Anti-CD105 antibody [MEM-226] (ab2529)

Overlay histogram showing U937 (Human histiocytic lymphoma cell line) cells stained with ab2529 (red line).

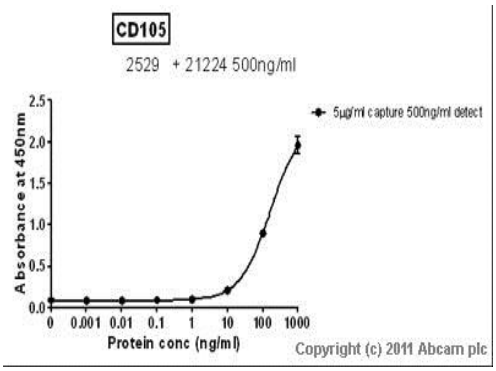
The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab2529, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in U937 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-CD105 antibody [MEM-226] (ab2529)

ICC/IF image of ab2529 stained HeLa (Human epithelial cell line from cervix adenocarcinoma) cells.

The cells were 4% formaldehyde fixed (10 min) and then incubated in 1% BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1 hour to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab2529, 10 µg/ml) overnight at +4°C. The secondary antibody (green) was **ab69879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1 hour. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1 hour. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43 µM.



Sandwich ELISA - Anti-CD105 antibody [MEM-226] (ab2529)

Standard Curve for CD105 (Analyte: **CD105 protein (ab54338)**); dilution range 1pg/ml to 1ug/ml using Capture Antibody **Mouse monoclonal [MEM-226] to CD105 (ab2529)** at 5ug/ml and Detector Antibody **Rabbit polyclonal to CD105 (ab21224)** at 0.5ug/ml.

Western blot - Anti-CD105 antibody [MEM-226] (ab2529)

Anti-CD105 antibody [MEM-226] (ab2529) at 5 µg/ml + Human colon tissue lysate at 10 µg

Secondary
Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Observed band size: 80 kDa
Additional bands at: 45 kDa, 55 kDa. We are unsure as to the identity of these extra bands.

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