abcam

## ab93567

# PE Anti-CD105 antibody [MJ7/18]

Anti-CD105 antibody [MJ7/18] conjugated to PE - suitable for flow cytometry, and reacts with mouse samples. Clone [MJ7/18] is a rat monoclonal antibody and one of the most commonly used clones for flow cytometry.

Design your panel with our interactive flow cytometry panel builder. Click here.

## Key facts

| | |
|---|---|
| **Isotype** | IgG2a |
| **Host species** | Rat |
| **Conjugation** | PE |
| **Excitation/Emission** | Ex: 480;565nm, Em: 578nm |
| **Storage buffer** | pH: 7.2 Preservative: 0.09% Sodium azide Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Tissue preparation containing Eng protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q63961 |
| **Clone number** | MJ7/18 |
| **Purification technique** | Affinity purification Protein G |
| **Light chain type** | kappa |
| **Concentration** | 0.2 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Flow Cyt

**Tested**

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 0.25-0.5 µg for $10^5$-$10^8$ Cells |
| **Notes** | ab134674 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |

## Target data

See full target information Eng

| | |
|---|---|
| **Function** | Vascular endothelium glycoprotein that plays an important role in the regulation of angiogenesis (PubMed:10625534). Required for normal structure and integrity of adult vasculature (By similarity). Regulates the migration of vascular endothelial cells (PubMed:17540773). Required for normal extraembryonic angiogenesis and for embryonic heart development (PubMed:10625534). May regulate endothelial cell shape changes in response to blood flow, which drive vascular remodeling and establishment of normal vascular morphology during angiogenesis (PubMed:28530658). May play a role in the binding of endothelial cells to integrins. 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:23300529). Required for GDF2/BMP9 signaling through SMAD1 in endothelial cells and modulates TGFB1 signaling through SMAD3 (By similarity). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | CD105 also known as endoglin or the CD105 marker is a transmembrane glycoprotein with a molecular weight of approximately 180 kDa. It is a component of the TGF-beta receptor complex and exists in endothelial cells where it is abundantly expressed. Expression of CD105 is higher in proliferating cells particularly in the vasculature. You can also find it in tissues involved in the formation and remodeling of blood vessels such as during angiogenesis. |
| **Biological function summary** | Endoglin functions in the regulation of angiogenesis and vascular remodeling. It plays a significant role in mediating cellular responses to TGF-beta signaling |

| | |
|---|---|
| | influencing endothelial cell proliferation and migration. While not part of a larger structural complex endoglin interacts with receptors and signaling molecules important for vascular development and repair processes. This involvement aids in maintaining endothelial integrity and function under various physiological conditions. |
| **Pathways** | CD105 participates in the TGF-beta signaling and angiogenesis pathways. In these pathways it acts in conjunction with other proteins like TGF-beta receptors which play roles in cell differentiation proliferation and apoptosis. The interaction between CD105 and TGF-beta signaling regulates numerous cellular mechanisms impacting angiogenesis and cellular responses to environmental changes. |
| **Associated diseases and disorders** | CD105 has links to hereditary hemorrhagic telangiectasia (HHT) and certain cancers. In HHT mutations in the endoglin gene alter vascular structure leading to the formation of abnormal blood vessels. Oncologically overexpression of CD105 is present in tumor angiogenesis aiding in the progression of certain cancers. Other proteins like VEGF and TGF-beta closely interact with endoglin influencing disease progression and presenting potential targets for therapeutic intervention. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

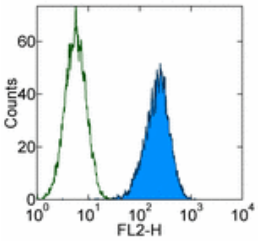
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

## 1 product image




## Flow Cytometry - PE Anti-CD105 antibody [MJ7/18] (ab93567)

CD105 Flow Cytometry staining using rat Anti-CD105 antibody

Staining of bEnd.3 (Mouse brain endothelioma cell line) whole cell lysate with 0.25 µg of PE Rat IgG2a Isotype Control (open histogram) or 0.25 µg of ab93567 (colored histogram). Total viable cells were used for analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.