Purified anti-mouse CD105 Antibody

Catalog# / Size	120401 / 50 µg 120402 / 500 µg
Clone	MJ7/18
Other Names	Endoglin
Isotype	Rat IgG2a, κ
Description	CD105 is a 90 kD homodimeric type I integral membrane glycoprotein, also known as endoglin. It is expressed on endothelial cells (especially on angiogenic endothelial cells) and upregulated by hypoxia, activated monocytes, macrophages, bone marrow stromal cells, and some cytotrophoblasts. CD105 is a receptor for TGF-β1, TGF-β3 and modulates TGF-β signaling by interacting with TGF-β receptors I and/or II. CD105 also binds other growth factors such as actvin A, BMP-2, and BMP-7. CD105 has been show to be a useful marker for identifying proliferating endothelium involved in tumor angiogenesis and can be used for tumor imaging and prognosis, and has therapeutic potential for some solid tumors and other angiogenic diseases.

Product Details

Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Inflamed mouse skin
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested IHC-F - Validated WB, IP - Reported in the literature
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. For immunohistochemical staining on frozen tissue sections, the suggested use of this reagent is 5.0-10 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications include: immunoprecipitation, Western blotting, and immunofluorescence histochemistry or immunohistochemistry of acetone-fixed frozen sections[2-4].
Application References **(PubMed link indicates BioLegend citation)**	1. Ge AZ and Butcher EC. 1994. Gene 138:201. 2. Baluk P, et al. 2003. Am. J. Pathol. 163:1801. (IHC) 3. Takahashi T, et al. 2003. Mol. Cell Biol. 23:1817. (IHC) 4. Savinov AY, et al. 2003. J. Exp. Med. 197:643. (IHC)
Product Citations	1. Stritt S, et al. 2016. Nat Commun. 7:11097. PubMed 2. Cao Y et al. 2018. Molecular metabolism. 14:71-81 . PubMed 3. Zhu YP et al. 2018. Cell reports. 24(9):2329-2341 . PubMed 4. Severe N et al. 2019. Cell Stem Cell. 25(4):570-583 . PubMed 5. Sereni L, et al. 2018. J Allergy Clin Immunol. 142:1272. PubMed
RRID	AB_961066 (BioLegend Cat. No. 120401) AB_961070 (BioLegend Cat. No. 120402)

Antigen Details

Structure	Type I integral membrane protein, homodimer, TGF-β type III receptor family member
Distribution	Endothelial cells, activated monocytes, macrophages, stromal cells, some cytotrophoblast
Function	Suppresses TGF-β signaling, angiogenesis
Ligand/Receptor	TGF-β1, TGF-β3
Cell Type	Endothelial cells, Macrophages, Mesenchymal Stem Cells, Monocytes
Biology Area	Angiogenesis, Cell Adhesion, Cell Biology, Immunology, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Gougos A and M. Letarte 1988. J. Immunol. 141:1925. 2. Cheifetz S, et al. 1992. J. Bio. Chem. 267:19027. 3. Barbara NP, et al. 1999. J. Bio. Chem. 274:584. 4. Lastres P, et al. 1992. Eur. J. Immunol. 22:393. 5. Duff S, et al. 2003. FASEB J. 17:984. 6. Warrington K, et al. 2005. Anticancer Res. 25:185.
Gene ID	13805

Related Protocols

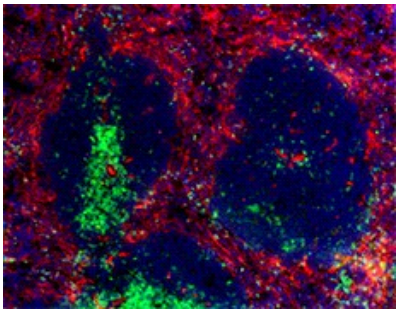
Immunohistochemistry Protocol for Frozen Sections

Cell Surface Flow Cytometry Staining Protocol

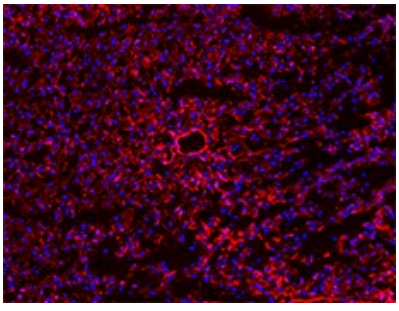
Other Formats

Biotin anti-mouse CD105, Alexa Fluor® 488 anti-mouse CD105, PE anti-mouse CD105, PE/Cyanine7 anti-mouse CD105, Pacific Blue™ anti-mouse CD105, APC anti-mouse CD105, PerCP/Cyanine5.5 anti-mouse CD105, Alexa Fluor® 594 anti-mouse CD105, Alexa Fluor® 647 anti-mouse CD105, TotalSeq™-A0812 anti-mouse CD105, PE/Dazzle™ 594 anti-mouse CD105, APC/Fire™ 750 anti-mouse CD105, PE/Cyanine5 anti-mouse CD105, TotalSeq™-C0812 anti-mouse CD105

Product Data



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for ten minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 µg/ml of purified anti-mouse CD105 (clone MJ7/18) and 10 µg/ml of Alexa Fluor® 647 anti-mouse CD3ε (clone 145-2C11) (green) overnight at 4°C, followed by 2.5 µg/ml of Alexa Fluor® 594 Goat anti-rat IgG (clone Poly4054) (red) for two hours at room temperature. Nuclei were counterstained with DAPI (blue). The image was captured with a 10X objective.



C57BL/6 mouse frozen liver section was fixed with 4% paraformaldehyde (PFA) for ten minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 µg/ml of purified anti-mouse CD105 (clone MJ7/18) overnight at 4°C, followed by 2.5 µg/ml of Alexa Fluor® 594 Goat anti-rat IgG (clone Poly4054) (red) for two hours at room temperature. Nuclei were counterstained with DAPI (blue). The image was captured with a 10X objective.

commercial use.

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