

TotalSeq™-A0812 anti-mouse CD105 Antibody

Catalog# / Size	120421 / 10 µg
Clone	MJ7/18
Regulatory Status	RUO
Other Names	Endoglin
Isotype	Rat IgG2a, κ
Barcode Sequence	TATCCCTGCCTTGCA
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 actin 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

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Inflamed mouse skin
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA.
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Application Notes	Additional reported applications include: immunoprecipitation, Western blotting, and immunofluorescence histochemistry or immunohistochemistry of acetone-fixed frozen sections ²⁻⁴ .
Additional Product Notes	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. 10x Genomics Chromium System and Reagents) and sequencer (e.g. Illumina analyzers) are required.

Please contact [technical support](#) for more information, or visit biolegend.com/totalseq.

The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

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)

RRID AB_2800587 (BioLegend Cat. No. 120421)

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- β 1, TGF- β 3
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	<ol style="list-style-type: none">1. Gougos A and M. Letarte 1988. <i>J. Immunol.</i> 141:1925.2. Cheifetz S, <i>et al.</i> 1992. <i>J. Bio. Chem.</i> 267:19027.3. Barbara NP, <i>et al.</i> 1999. <i>J. Bio. Chem.</i> 274:584.4. Lastres P, <i>et al.</i> 1992. <i>Eur. J. Immunol.</i> 22:393.5. Duff S, <i>et al.</i> 2003. <i>FASEB J.</i> 17:984.6. Warrington K, <i>et al.</i> 2005. <i>Anticancer Res.</i> 25:185.
Gene ID	13805

Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

Other Formats

Purified anti-mouse CD105, 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, APC/Cyanine7 anti-mouse CD105

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