

## TotalSeq™-A0245 anti-human CD106 Antibody

<b>Catalog# / Size</b>	305813 / 10 µg
<b>Clone</b>	STA
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	V A013
<b>Other Names</b>	VCAM-1, INCAM-110
<b>Isotype</b>	Mouse IgG1, κ
<b>Barcode Sequence</b>	TCACAGTTCCTTGA
<b>Description</b>	CD106 is a 110 kD single chain type I glycoprotein also known as VCAM-1 and INCAM-110. It is expressed predominantly on activated vascular endothelium but has also been identified on follicular and interfollicular dendritic cells, some macrophages, bone marrow stromal cells, and non-vascular cell populations within joints, kidney, muscle, heart, placenta, and brain. Expression on endothelial cells as well as many other cells is induced by inflammatory stimuli and cytokines. Activated endothelial cells can release soluble forms of CD106 which can be detected in the blood. CD106 binds the integrins CD49d/CD29 (VLA-4) and α4β7 that contribute to leukocyte adhesion, transmigration, and co-stimulation of T cell proliferation.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA.
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression <a href="#">Solutions</a>.</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>
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunofluorescence <sup>3</sup> , immunohistochemical staining of acetone-fixed frozen tissue sections, immunoprecipitation <sup>2</sup> , ELISA <sup>2</sup> capture for sCD106, and spatial biology (IBEX) <sup>5,6</sup> .
<b>Additional Product Notes</b>	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. <a href="#">10x Genomics Chromium System and Reagents</a> ) and sequencer (e.g. Illumina analyzers) are required.

Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](http://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. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Leca G, *et al.* 1995. *J. Immunol.* 154:1069. (ELISA IP)
3. Yen YT, *et al.* 2006. *J. Virol.* 80:2648. (IF) [PubMed](#)
4. Dmitrieva NI, *et al.* 2015. *PLoS One.* 10:128870. [PubMed](#)
5. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
6. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

RRID AB\_2800788 (BioLegend Cat. No. 305813)

## Antigen Details

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<b>Structure</b>	Ig superfamily, type I glycoprotein, 110 kD
<b>Distribution</b>	Activated endothelial cells, endothelial progenitors, follicular dendritic cells
<b>Function</b>	Leukocyte adhesion, transmigration, costimulation
<b>Ligand/Receptor</b>	VLA-4 (CD49d/CD29)
<b>Cell Type</b>	Dendritic cells, Endothelial cells, Mesenchymal Stem Cells
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Carlos T, <i>et al.</i> 1994. <i>Blood</i> 84:2068.</li><li>2. Jones E, <i>et al.</i> 1995. <i>Nature</i> 373:539.</li></ol>
<b>Gene ID</b>	<a href="#">7412</a>

## Related Protocols

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

## Other Formats

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APC anti-human CD106, Biotin anti-human CD106, PE anti-human CD106, PE/Cyanine5 anti-human CD106, Purified anti-human CD106, TotalSeq™-A0245 anti-human CD106, PE/Cyanine7 anti-human CD106, Brilliant Violet 421™ anti-human CD106, TotalSeq™-C0245 anti-human CD106

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