

TotalSeq™-B0226 anti-mouse CD106 Antibody

Catalog# / Size	105731 / 10 µg
Clone	429 (MVCAM.A)
Regulatory Status	RUO
Other Names	VCAM-1, INCAM-110
Isotype	Rat IgG2a, κ
Barcode Sequence	CGTTCCTACCTACCT
Description	CD106 is a 110 kD glycosylphosphatidylinositol (GPI)-linked transmembrane protein, also known as VCAM-1 and INCAM-110. It is constitutively expressed on bone marrow stromal cells, myeloid progenitors, splenic dendritic cells, activated endothelial cells, as well as some lymphocytes. CD106 expression can be upregulated on endothelial cells by inflammatory cytokines. CD106 is involved in adhesion and acts as a counter-receptor for VLA-4 (α4β1 integrin) and LPAM-1 (α4β7 integrin). The 429 antibody has been reported to partially block VCAM-1-mediated binding.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse preadipose cell line PA6
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™-B 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™-B 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 (for the relevant formats) include: immunohistochemical staining ^{2,3,5-7} of acetone-fixed frozen sections, blocking ^{4,5,8} of ligand binding <i>in vitro</i> and <i>in vivo</i> , immunoprecipitation ¹ , and spacial biology (IBEX) ^{11,12} . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 105727 & 105728).
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 GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCTNNNNNNNNN (PCR handle), and NNNNNNNNGCTTTAAGGCCGGTCCTAGC*A*A (capture sequence). N represents either randomly selected A, 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. Kinashi T, *et al.* 1995. *J. Leukoc. Biol.* 57:168. (IP)
2. Koni PA, *et al.* 2001. *J. Exp. Med.* 193:741. (IHC)
3. Ishiyama N, *et al.* 1998. *Pathobiology* 66:274. (IHC)
4. Kinashi T, *et al.* 1994. *Blood Cells* 20:25. (Block)
5. Baron JL, *et al.* 1994. *J. Clin. Invest.* 93:1700. (Block IHC)
6. Buck CA, *et al.* 1996. *Cell Adhes. Commun.* 4:69. (IHC)
7. Hata H, *et al.* 2004. *J. Clin. Invest.* 114:582. (IHC)
8. Meunier MC, *et al.* 2005. *Nature Medicine* 11:1222. (Block) [PubMed](#)
9. Monnier J, *et al.* 2012. *J. Immunol.* 189:956. [PubMed](#)
10. Motohashi N, *et al.* 2013. *J Cell Sci.* 126:2678. [PubMed](#)
11. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci U S A.* 117:33455-65. (SB) [PubMed](#)
12. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

RRID AB_2860610 (BioLegend Cat. No. 105731)

Antigen Details

Structure	Ig superfamily, 47 kD
Distribution	Bone marrow stromal cells, myeloid progenitors, splenic dendritic cells, activated endothelial cells
Function	Adhesion
Ligand/Receptor	VLA-4 ($\alpha 4/\beta 1$ integrin) and LPAM-1 ($\alpha 4/\beta 7$ integrin)
Cell Type	Dendritic cells, Endothelial cells, Mesenchymal Stem Cells
Biology Area	Cell Adhesion, Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none">1. Barclay AN, <i>et al.</i> 1997. The Leukocyte Antigen FactsBook Academic Press.2. Kinashi T, <i>et al.</i> 1995. <i>J. Leukoc. Biol.</i> 57:168.3. Bevilacqua MP. 1993. <i>Annu. Rev. Immunol.</i> 11:767.4. Koni PA, <i>et al.</i> 2001. <i>J. Exp. Med.</i> 193:741.
Gene ID	22329

Related Protocols

[TotalSeq™-B or -C with 10x Feature Barcoding Technology](#)

Other Formats

Biotin anti-mouse CD106, FITC anti-mouse CD106, LEAF™ Purified anti-mouse CD106, Purified anti-mouse CD106, Alexa Fluor® 488 anti-mouse CD106, Alexa Fluor® 647 anti-mouse CD106, PE anti-mouse CD106, PerCP/Cyanine5.5 anti-mouse CD106, APC anti-mouse CD106, PE/Cyanine7 anti-mouse CD106, Pacific Blue™ anti-mouse CD106, Alexa Fluor® 594 anti-mouse CD106, TotalSeq™-A0226 anti-mouse CD106, Ultra-LEAF™ Purified anti-mouse CD106, TotalSeq™-C0226 anti-mouse CD106, TotalSeq™-B0226 anti-mouse CD106

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