

## TotalSeq™-A0163 anti-human CD141 (Thrombomodulin) Antibody

<b>Catalog# / Size</b>	344121 / 10 µg
<b>Clone</b>	M80
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Thrombomodulin, TM, THRM, THBD, Fetomodulin, BDCA-3
<b>Isotype</b>	Mouse IgG1, κ
<b>Barcode Sequence</b>	GGATAACCGCGCTTT
<b>Description</b>	CD141 is a 75 kD, single chain, type I membrane glycoprotein also known as thrombomodulin, TM, THRM, THBD, and fetomodulin. CD141 is an important cofactor in the protein C anticoagulant system. After binding to its ligand thrombin, CD141 activates protein C, which degrades clotting factors Va and VIIIa, and as a consequence the amount of thrombin is reduced. CD141 is expressed on macrophages, monocytes, a subpopulation of myeloid dendritic cells, vascular endothelial cells, and keratinocytes. Besides anti-coagulation function, CD141 is also involved in embryonic and atherosclerotic plaque development.

### Product Details

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon
<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>Additional Product Notes</b>	<p>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 <a href="#">technical support</a> for more information, or visit <a href="http://biolegend.com/totalseq">biolegend.com/totalseq</a>.</p> <p>The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.</p>

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

## Product Citations

1. Cook CP, *et al.* 2022. *Cell Rep Med.* 3:100715. [PubMed](#)
2. Witkowski MT, *et al.* 2020. *Cancer Cell.* 37:867. [PubMed](#)
3. Swanson E, *et al.* 2021. *eLife.* 10:00. [PubMed](#)
4. Hao Y, *et al.* 2021. *Cell.* 184:3573. [PubMed](#)

## RRID

AB\_2783229 (BioLegend Cat. No. 344121)

## Antigen Details

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<b>Structure</b>	Single chain, type I membrane glycoprotein, 75 kD
<b>Distribution</b>	Macrophages, monocytes, subset of myeloid dendritic cells, vascular endothelial cells, keratinocytes
<b>Function</b>	After thrombin binding, CD141 activates protein C, which degrades clotting factors Va and VIII and reduces the amount of thrombin generated.
<b>Interaction</b>	Protein C, Thrombin-activatable fibrinolysis inhibitor (TAFI), Platelet factor 4 (PF4)
<b>Ligand/Receptor</b>	Thrombin
<b>Cell Type</b>	Dendritic cells, Endothelial cells, Macrophages, Monocytes
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Suzuki K, <i>et al.</i> 1987. <i>EMBO J.</i> 6:1891.</li><li>2. Esmon CT, <i>et al.</i> 1989. <i>J. Biol. Chem.</i> 264:4743.</li><li>3. Delvaeye M, <i>et al.</i> 2009. <i>N. Engl. J. Med.</i> 361:345.</li><li>4. Shi CS, <i>et al.</i> 2008. <i>Blood</i> 112:3661.</li><li>5. Chen LC, <i>et al.</i> 2009. <i>J. Infect.</i> 58:368.</li></ol>
<b>Gene ID</b>	<a href="#">7056</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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Purified anti-human CD141 (Thrombomodulin), PE anti-human CD141 (Thrombomodulin), APC anti-human CD141 (Thrombomodulin), Biotin anti-human CD141 (Thrombomodulin), PE/Cyanine7 anti-human CD141 (Thrombomodulin), PerCP/Cyanine5.5 anti-human CD141 (Thrombomodulin), Brilliant Violet 421™ anti-human CD141 (Thrombomodulin), Brilliant Violet 785™ anti-human CD141 (Thrombomodulin), Brilliant Violet 605™ anti-human CD141 (Thrombomodulin), PE/Dazzle™ 594 anti-human CD141 (Thrombomodulin), TotalSeq™-A0163 anti-human CD141 (Thrombomodulin), Alexa Fluor® 647 anti-human CD141 (Thrombomodulin), TotalSeq™-C0163 anti-human CD141 (Thrombomodulin), TotalSeq™-B0163 anti-human CD141 (Thrombomodulin), KIRAVIA Blue 520™ anti-human CD141 (Thrombomodulin), TotalSeq™-D0163 anti-human CD141 (Thrombomodulin), PE/Fire™ 810 anti-human CD141 (Thrombomodulin)

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