

## PerCP/Cyanine5.5 anti-human CD141 (Thrombomodulin) Antibody

<b>Catalog# / Size</b>	344111 / 25 tests 344112 / 100 tests
<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>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

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<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 BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<b>Product Citations</b>	<ol style="list-style-type: none"><li>Findlay EG, <i>et al.</i> 2019. Oncoimmunology. 8:1608106. <a href="#">PubMed</a></li><li>Zhang W, <i>et al.</i> 2019. Mar Drugs. 0.754166667. <a href="#">PubMed</a></li><li>Zhang W, <i>et al.</i> 2020. Nat Commun. 11:1187. <a href="#">PubMed</a></li><li>Wu J, <i>et al.</i> 2021. Mol Ther Oncolytics. 23:288. <a href="#">PubMed</a></li><li>NULL, <i>et al.</i> 2022. Cell. 185:916. <a href="#">PubMed</a></li><li>Maney N, <i>et al.</i> 2014. J Immunol. 193:4914. <a href="#">PubMed</a></li></ol>
<b>RRID</b>	AB_2561624 (BioLegend Cat. No. 344111) AB_2561625 (BioLegend Cat. No. 344112)

## 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 VIIIa 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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[Cell Surface Flow Cytometry Staining Protocol](#)

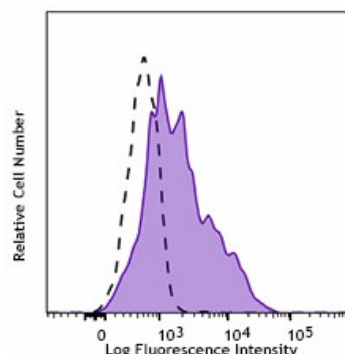
## Other Formats

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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)

## Product Data

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LPS-stimulated (overnight) human peripheral blood monocytes were stained with CD141 (Thrombomodulin) (clone M80) PerCP/Cyanine5.5 (filled histogram) or Mouse IgG1, ? PerCP/Cyanine5.5 isotype control (open histogram).

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