

## APC anti-human CD141 (Thrombomodulin) Antibody

<b>Catalog# / Size</b>	344105 / 25 tests 344106 / 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, $\kappa$
<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 APC 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 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Product Citations</b>	<ol style="list-style-type: none"><li>Montes de Oca M, <i>et al.</i> 2016. Cell Rep. 17:399-412. <a href="#">PubMed</a></li><li>Kubo M, <i>et al.</i> 2018. Oncol Rep. 39:417. <a href="#">PubMed</a></li><li>Álvaro de Mingo Pulido <i>et al.</i> 2018. Cancer cell. 33(1):60-74 . <a href="#">PubMed</a></li><li>de Mingo Pulido , <i>et al.</i> 2021. Immunity. 54(6):1154-1167.e7. <a href="#">PubMed</a></li><li>Longman R, <i>et al.</i> 2014. J Exp Med. 211:1571. <a href="#">PubMed</a></li><li>Weisberg SP, <i>et al.</i> 2020. Cell Reports. 29(12):3916-3932.e5.. <a href="#">PubMed</a></li><li>Woodberry T, <i>et al.</i> 2017. Infect Immun. 85:e00986. <a href="#">PubMed</a></li><li>Autenrieth S, <i>et al.</i> 2015. Clin Transl Immunology. 4:50. <a href="#">PubMed</a></li><li>Adhikaree J, <i>et al.</i> 2019. Oncoimmunology. 8:1593803. <a href="#">PubMed</a></li></ol>
<b>RRID</b>	AB_10900238 (BioLegend Cat. No. 344105) AB_10899578 (BioLegend Cat. No. 344106)

### Antigen Details

<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>

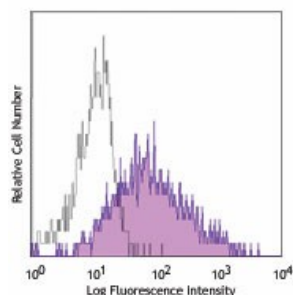
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

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



Human peripheral blood monocytes were stimulated with LPS (overnight) and then stained with CD141 (clone M80) APC (filled histogram) or mouse IgG1, κ APC isotype control (open histogram). Data shown was gated on the CD14+ cell population.

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