

PE anti-human CD141 (Thrombomodulin) Antibody

Catalog# / Size	344103 / 25 tests 344104 / 100 tests
Clone	M80
Regulatory Status	RUO
Other Names	Thrombomodulin, TM, THRM, THBD, Fetomodulin, BDCA-3
Isotype	Mouse IgG1, κ
Description	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

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Product Citations	<ol style="list-style-type: none"> 1. Sposito B, <i>et al.</i> 2021. Cell. 184:4953. PubMed 2. Vijayakumar B, <i>et al.</i> 2022. Immunity. . PubMed 3. Obradovic A, <i>et al.</i> 2021. Cell. 184(11):2988-3005.e16. PubMed 4. Escudero-Pérez B, <i>et al.</i> 2019. JCI Insight. 4:e126070. PubMed 5. Audigé A, <i>et al.</i> 2017. BMC Immunology. 10.1186/s12865-017-0209-9. PubMed 6. Barman S, <i>et al.</i> 2016. Int Immunol. 28: 533 - 545. PubMed 7. Ju X, <i>et al.</i> 2016. J Immunol. 197(12):4613-4625. PubMed 8. Kong XF, <i>et al.</i> 2018. Nat Immunol. 19:973. PubMed 9. Jenner W, <i>et al.</i> 2014. PLoS One. 9:89375. PubMed 10. Christoffersen T, <i>et al.</i> 2015. Mol Immunol. 66: 107-116. PubMed
RRID	AB_1877220 (BioLegend Cat. No. 344103) AB_2255842 (BioLegend Cat. No. 344104)

Antigen Details

Structure	Single chain, type I membrane glycoprotein, 75 kD
Distribution	Macrophages, monocytes, subset of myeloid dendritic cells, vascular endothelial cells, keratinocytes
Function	After thrombin binding, CD141 activates protein C, which degrades clotting factors Va and VIIIa and reduces the amount of thrombin generated.
Interaction	Protein C, Thrombin-activatable fibrinolysis inhibitor (TAFI), Platelet factor 4 (PF4)
Ligand/Receptor	Thrombin
Cell Type	Dendritic cells, Endothelial cells, Macrophages, Monocytes
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Suzuki K, <i>et al.</i> 1987. <i>EMBO J.</i> 6:1891.2. Esmon CT, <i>et al.</i> 1989. <i>J. Biol. Chem.</i> 264:4743.3. Delvaeye M, <i>et al.</i> 2009. <i>N. Engl. J. Med.</i> 361:345.4. Shi CS, <i>et al.</i> 2008. <i>Blood</i> 112:3661.5. Chen LC, <i>et al.</i> 2009. <i>J. Infect.</i> 58:368.
Gene ID	7056

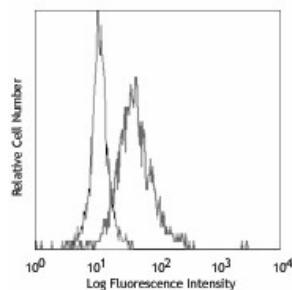
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

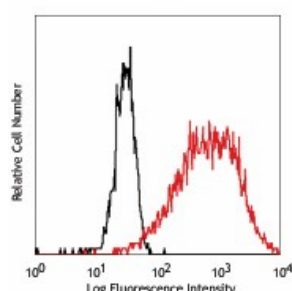
Other Formats

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 stained with M80 PE



LPS-stimulated (overnight) human peripheral blood mononuclear cells stained with M80 PE (gated on CD14+ cells)

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