

## APC anti-human CD29 Antibody

<b>Catalog# / Size</b>	303007 / 25 tests 303008 / 100 tests
<b>Clone</b>	TS2/16
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	V A-S202
<b>Other Names</b>	Integrin $\beta$ 1 chain, VLA- $\beta$ chain, gpIIa, ITGB1
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD29 is a 130 kD single chain type I glycoprotein also known as integrin $\beta$ 1, VLA- $\beta$ chain, or gpIIa. It is broadly expressed on a majority of hematopoietic and non-hematopoietic cells, including leukocytes (although at low level on granulocytes), platelets, fibroblasts, endothelial cells, epithelial cells, and mast cells. CD29 is a member of the integrin family. It is non-covalently associated with integrin $\alpha$ 1- $\alpha$ 6 chains to form VLA-1 to VLA-6 molecules, respectively. Integrins, which include CD29, bind to several cell surface (e.g. VCAM-1, MadCAM-1) and extracellular matrix molecules. CD29 acts as a fibronectin receptor and is involved in a variety of cell-cell and cell-matrix interactions.

### Product Details

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cow, Cynomolgus, Dog, Horse, Rhesus
<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>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>3</sup> , immunohistochemical staining of acetone-fixed frozen tissue sections <sup>3,5</sup> , and activation of integrin $\beta$ 1 <sup>4,7,8</sup> . The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2 $\mu$ m filtered) is recommended for functional assays (Cat. No. 303010). Clone TS2/16 recognizes epitope A2. <sup>10</sup>
<b>Application References</b>	<ol style="list-style-type: none"> <li>Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.</li> <li>Gutierrez-Lopez M, <i>et al.</i> 2003. <i>J. Biol. Chem.</i> 278:208.</li> <li>Hemler ME, <i>et al.</i> 1984. <i>J. Immunol.</i> 132:3011. (IHC, IP)</li> <li>Sanchez-Aparicio P, <i>et al.</i> 1994. <i>J. Cell Biol.</i> 126:271. (Activ)</li> <li>Frank NY, <i>et al.</i> 2005. <i>Cancer Res.</i> 65:4320. (IHC)</li> <li>Murga M, <i>et al.</i> 2005. <i>Blood</i> 105:1992. (FC) <a href="#">PubMed</a></li> <li>Porter JC and Hogg N. 1997. <i>J. Cell Biol.</i> 138:1437. (Activ)</li> <li>Conway RE, <i>et al.</i> 2006. <i>Mol. Cell. Biol.</i> 26:5310. (Activ)</li> <li>Wesseling J, <i>et al.</i> 1995. <i>J. Cell. Biol.</i> 129:255. (Dog Reactivity)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

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## Product Citations

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## RRID

AB\_314323 (BioLegend Cat. No. 303007)  
 AB\_314324 (BioLegend Cat. No. 303008)

## Antigen Details

<b>Structure</b>	Integrin, type I glycoprotein, forms VLA-1 to VLA-6 heterodimers with CD49a-f ( $\alpha_1$ - $\alpha_6$ ), also associates with CD51 ( $\alpha_V$ ), and $\alpha_7$ - $\alpha_9$ , 130 kD
<b>Distribution</b>	Lymphocytes, monocytes, granulocytes (low), platelets, mast cells, fibroblasts, endothelial cells
<b>Function</b>	Cell-cell and cell-matrix interactions
<b>Ligand/Receptor</b>	VCAM-1, MAdCAM-1, ECM
<b>Cell Type</b>	Embryonic Stem Cells, Endothelial cells, Fibroblasts, Granulocytes, Lymphocytes, Mast cells, Mesenchymal Stem Cells, Monocytes, Platelets, Tregs
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Immunology, Innate Immunity, Stem Cells
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	1. Hemler M. 1990. <i>Annu. Rev. Immunol.</i> 8:365. 2. Hynes R. 1992. <i>Cell</i> 69:11.
<b>Gene ID</b>	<a href="#">3688</a>

## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

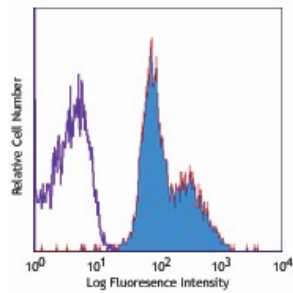
## Other Formats

APC anti-human CD29, PE anti-human CD29, PE/Cyanine5 anti-human CD29, Purified anti-human CD29, APC/Cyanine7 anti-human CD29, Alexa Fluor® 488 anti-human CD29, Alexa Fluor® 647 anti-human CD29, Alexa Fluor® 700 anti-human CD29,

Purified anti-human CD29 (Maxpar® Ready), PerCP/Cyanine5.5 anti-human CD29, PE/Cyanine7 anti-human CD29, TotalSeq™-A0369 anti-human CD29, TotalSeq™-C0369 anti-human CD29, TotalSeq™-B0369 anti-human CD29, PE/Dazzle™ 594 anti-human CD29, Ultra-LEAF™ Purified anti-human CD29

## Product Data

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Human peripheral blood lymphocytes  
stained with TS2/16 APC

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