

Purified anti-human CD29 (Maxpar[®] Ready) Antibody

Catalog# / Size	303021 / 100 µg
Clone	TS2/16
Regulatory Status	RUO
Workshop	V A-S202
Other Names	Integrin β1 chain, VLA-β chain, gpIIa, ITGB1
Isotype	Mouse IgG1, κ
Description	CD29 is a 130 kD single chain type I glycoprotein also known as integrin β ₁ , VLA-β 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 α1-α6 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

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cow, Cynomolgus, Dog, Horse, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and EDTA.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1.0 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested CyTOF[®] - Verified
Recommended Usage	This product is suitable for use with the Maxpar[®] Metal Labeling Kits . For metal labeling using Maxpar [®] Ready antibodies, proceed directly to the step to Partially Reduce the Antibody by adding 100 µl of Maxpar [®] Ready antibody to 100 µl of 4 mM TCEP-R in a 50 kDa filter and continue with the protocol. Always refer to the latest version of Maxpar [®] User Guide when conjugating Maxpar [®] Ready antibodies.
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation ³ , immunohistochemical staining of acetone-fixed frozen tissue sections ^{3,5} , and activation of integrin β ₁ ^{4,7,8} . The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 303010). Clone TS2/16 recognizes epitope A2. ¹⁰
Additional Product Notes	Maxpar [®] is a registered trademark of Standard BioTools Inc.
Application References	
(PubMed link indicates BioLegend citation)	<ol style="list-style-type: none"> Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. Gutierrez-Lopez M, <i>et al.</i> 2003. <i>J. Biol. Chem.</i> 278:208. Hemler ME, <i>et al.</i> 1984. <i>J. Immunol.</i> 132:3011. (IHC, IP) Sanchez-Aparicio P, <i>et al.</i> 1994. <i>J. Cell Biol.</i> 126:271. (Activ) Frank NY, <i>et al.</i> 2005. <i>Cancer Res.</i> 65:4320. (IHC) Murga M, <i>et al.</i> 2005. <i>Blood</i> 105:1992. (FC) PubMed Porter JC and Hogg N. 1997. <i>J. Cell Biol.</i> 138:1437. (Activ) Conway RE, <i>et al.</i> 2006. <i>Mol. Cell. Biol.</i> 26:5310. (Activ) Wesseling J, <i>et al.</i> 1995. <i>J. Cell. Biol.</i> 129:255. (Dog Reactivity) Rubio G, <i>et al.</i> 2002. <i>Cancer Immunol. Immunother.</i> 51:130.

11. Dong A, *et al.* 2015. *J Biol Chem.* 290:8016. PubMed
12. Paebst F, *et al.* 2014. *Cytometry A.* 85(8):678-87. (Horse reactivity)

Product Citations

1. Hwang B, *et al.* 2021. *Nat Methods.* 18:903. [PubMed](#)

RRID

AB_2563738 (BioLegend Cat. No. 303021)

Antigen Details

Structure	Integrin, type I glycoprotein, forms VLA-1 to VLA-6 heterodimers with CD49a-f (α_1 - α_6), also associates with CD51 (α_V), and α_7 - α_9 , 130 kD
Distribution	Lymphocytes, monocytes, granulocytes (low), platelets, mast cells, fibroblasts, endothelial cells
Function	Cell-cell and cell-matrix interactions
Ligand/Receptor	VCAM-1, MAdCAM-1, ECM
Cell Type	Embryonic Stem Cells, Endothelial cells, Fibroblasts, Granulocytes, Lymphocytes, Mast cells, Mesenchymal Stem Cells, Monocytes, Platelets, Tregs
Biology Area	Cell Adhesion, Cell Biology, Immunology, Innate Immunity, Stem Cells
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Hemler M. 1990. <i>Annu. Rev. Immunol.</i> 8:365. 2. Hynes R. 1992. <i>Cell</i> 69:11.
Gene ID	3688

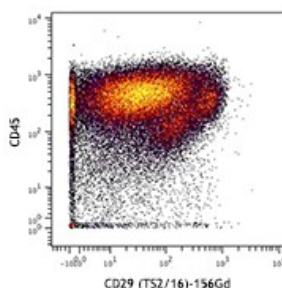
Related Protocols

[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



Human PBMCs stained with 154Sm-anti-CD45 (HI30) and 156Gd-anti-CD29 (TS2/16). Data provided by DVS Sciences.

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587