

# Product Data Sheet

## Purified anti-human CD29

**Catalog # / Size:** 303001 / 25 µg  
303002 / 100 µg

**Clone:** TS2/16

**Isotype:** Mouse IgG1, κ

**Workshop Number:** V A-S202

**Reactivity:** Human, **Cross-Reactivity\*:** Cattle (Bovine, Cow)

**Preparation:** The antibody was purified by affinity chromatography.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C.

## Applications:

**Applications:** FC - *Quality tested*  
IF - *Validated*  
IHC, IP - *Reported in the literature*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.5 µg per 10<sup>6</sup> cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>3</sup>, immunohistochemical staining<sup>3,5</sup> of acetone-fixed frozen tissue sections, and activation<sup>4,7,8</sup> of integrin β<sub>1</sub>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 303010).

**Application References:**

- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- Gutierrez-Lopez M, *et al.* 2003. *J. Biol. Chem.* 278:208.
- Hemler ME, *et al.* 1984. *J. Immunol.* 132:3011.
- Sanchez-Aparicio P, *et al.* 1994. *J. Cell Biol.* 126:271.
- Frank NY, *et al.* 2005. *Cancer Res.* 65:4320.
- Murga M, *et al.* 2005. *Blood* 105:1992.
- Porter JC and Hogg N. 1997. *J. Cell Biol.* 138:1437.
- Conway RE, *et al.* 2006. *Mol. Cell. Biol.* 26:5310. PubMed
- Pillozzi S, *et al.* 2011. *Blood* 117:902. PubMed
- Zhang X, *et al.* 2011. *Am J Physiol Cell Physiol.* 301:1017. PubMed.

**Description:** CD29 is a 130 kD single chain type I glycoprotein, known as integrin β<sub>1</sub>, VLA-β chain, or gp11a. 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.

**Antigen References:**

- Hemler M. 1990. *Annu. Rev. Immunol.* 8:365.
- Hynes R. 1992. *Cell* 69:11.

### Related Products:

**Product**  
Purified anti-human CD49d

Purified Mouse IgG1, κ Isotype Ctrl

APC Goat anti-mouse IgG (minimal x-reactivity)

Biotin Goat anti-mouse IgG (minimal x-reactivity)

FITC Goat anti-mouse IgG (minimal x-reactivity)

PE Goat anti-mouse IgG (minimal x-reactivity)

Cell Staining Buffer

### Clone

9F10

MOPC-21

Poly4053

Poly4053

Poly4053

Poly4053

### Application

FC, IHC

FC, ICFC, ICC, IF, IHC, IP, WB

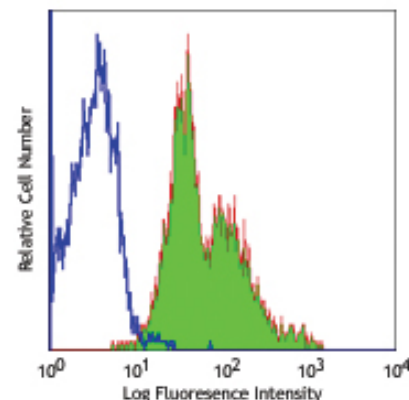
FC

FC, ELISA, IHC, IF, WB

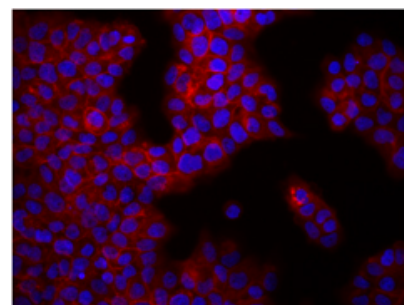
FC

FC

FC, ICC, ICFC



Human peripheral blood lymphocytes stained with purified TS2/16, followed by anti-mouse IgGs FITC



BT474 breast cancer cells were stained with anti-CD29 (clone TS2/16) followed by DyLight™ 649 Goat anti-mouse Ig secondary antibody (red), plus DAPI staining for nuclei (blue). Images were taken under 20x bin4 (Filter set: EX647/10x, Dichroic 665LP, EM 700/70x) at exposure 4s. Data provided by Er Liu and John Nolan, La Jolla Institute for Bioengineering.



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RBC Lysis Buffer (10X)

FC, ICFC



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