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Product Data Sheet

Alexa Fluor® 647 anti-human CD29

Catalog # / Size: 303017 / 25 tests
303018 / 100 tests

Clone: TS2/16

Isotype: Mouse IgG1, κ

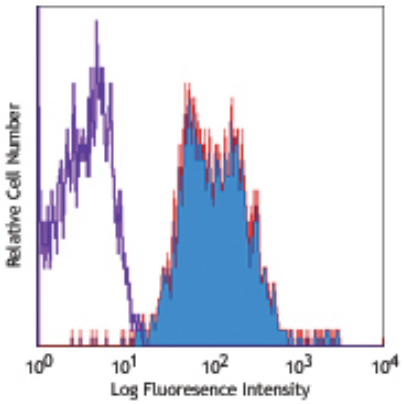
Workshop Number: V A-S202

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

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with TS2/16 Alexa Fluor® 647

Applications:

Applications: FC - *Quality tested*

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 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.
** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation[3], immunohistochemical staining[3,5] of acetone-fixed frozen tissue sections, and activation[4,7,8] of integrin β_1. 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:
1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Gutierrez-Lopez M, *et al.* 2003. *J. Biol. Chem.* 278:208.
3. Hemler ME, *et al.* 1984. *J. Immunol.* 132:3011.
4. Sanchez-Aparicio P, *et al.* 1994. *J. Cell Biol.* 126:271.
5. Frank NY, *et al.* 2005. *Cancer Res.* 65:4320.
6. Murga M, *et al.* 2005. *Blood* 105:1992.
7. Porter JC and Hogg N. 1997. *J. Cell Biol.* 138:1437.
8. Conway RE, *et al.* 2006. *Mol. Cell. Biol.* 26:5310.
9. Yu X, *et al.* 2011. *J. Biol Chem.* 286:43735. PubMed.

Description: CD29 is a 130 kD single chain type I glycoprotein, 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.

Antigen References:
1. Hemler M. 1990. *Annu. Rev. Immunol.* 8:365.
2. Hynes R. 1992. *Cell* 69:11.

Related Products:

Product	Clone	Application
Cell Staining Buffer		FC, ICC, ICFC
Alexa Fluor® 647 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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