Technical Data Sheet

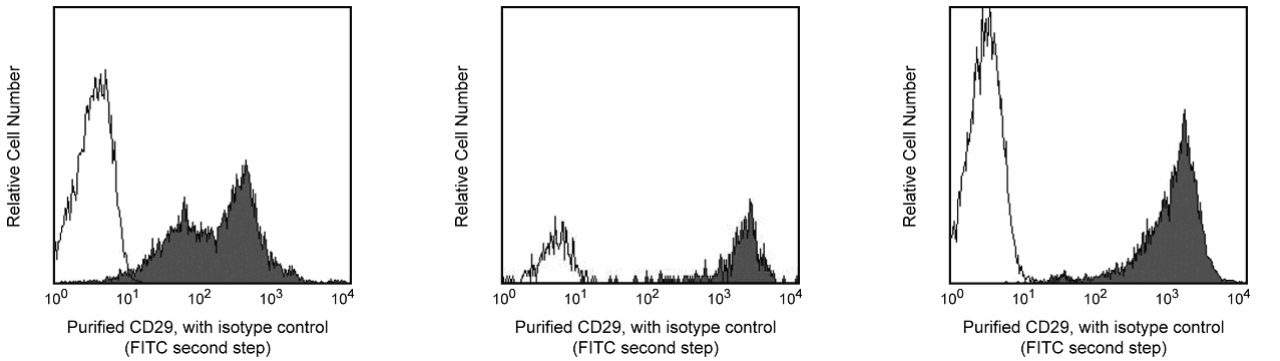
Purified Mouse Anti-Pig CD29

Product Information

Material Number:	**552369**
Alternate Name:	Integrin β1 chain
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	NaM160-1A3
Immunogen:	Pig platelets
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Pig
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The NaM160-1A3 antibody reacts with the 116-kDa integrin β1 chain (CD29). CD29 is expressed on the cell surface as a heterodimer with one of the distinct integrin α chains. With α1 through α6 (CD49a through CD49f), it forms the VLA-1 through VLA-6 complexes, respectively, and with αv (CD51), it forms αvβ1 integrin. As a result, CD29 has a broad tissue distribution, including leukocytes, endothelia, epithelia, and oocytes. Porcine CD29 is believed to be a major target for natural antibodies involved in rejection of pig-to-human xenografts, and a mAb to block recognition of pig CD29 may have therapeutic applications. NaM160-1A3 mAb does not cross-react with human peripheral blood lymphocytes or umbilical cord vein endothelial cells.



Expression of CD29 on pig peripheral blood leukocytes. *Pig whole blood was stained with either purified mAb NaM160-1A3 (filled histograms) or purified mouse IgG1, κ isotype control mAb MOPC-31C (Cat. No. 557273, open histograms), followed by FITC-conjugated goat anti-mouse Ig (multiple adsorption, Cat. No. 554001). Erythrocytes were lysed (PharM Lyse™, Cat. No. 555899), non-viable leukocytes were excluded by staining with 7-AAD (Via-Probe™, Cat. No. 555816/555815), and lymphocytes (left panel), monocytes (center panel), and granulocytes (right panel) were gated according to their light-scatter profiles. Multi-color staining (data not shown) demonstrates that most CD4-CD8+ T and NK cells and most CD4+CD8+ memory T cells make up the CD29bright lymphocyte population, CD4+CD8- T lymphocytes are CD29dim, and the CD4-CD8- lymphocytes have CD29negative and CD29dim subpopulations. Flow cytometry was performed on a FACSCalibur™ (BD Biosciences, San Jose, CA).*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunoprecipitation	Reported
ELISA	Reported
Western blot	Reported
Immunohistochemistry-frozen	Reported
Immunofluorescence	Reported

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Suggested Companion Products

Catalog Number	Name	Size	Clone
557273	Purified Mouse IgG1, κ Isotype Control	0.5 mg	MOPC-31C
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
555899	Lysing Buffer	100 ml	(none)
555816	Cell Viability Solution	100 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

References

Jiménez-Marín A, Garrido JJ, de Andrés-Cara DF, Morera L, Barbancho MJ, Llanes D. Molecular cloning and characterization of the pig homologue to human CD29, the integrin beta1 subunit. *Transplantation.* 2000; 70(4):649-655.(Biology)

Linfor J, Berger T. Potential role of alphav and beta1 integrins as oocyte adhesion molecules during fertilization in pigs. *J Reprod Fertil.* 2000; 120(1):65-72. (Biology)

Richard C, Thibaudeau K, Charreau B, et al. Characterization of a murine monoclonal antibody specific for swine beta1 integrin. *Xenotransplantation.* 1998; 5(1):75-83.(Immunogen: ELISA, Immunoaffinity chromatography, Immunocytochemistry (cytospins), Immunofluorescence, Immunoprecipitation, Western blot)

Springer TA. Adhesion receptors of the immune system. *Nature.* 1990; 346(6283):425-434.(Biology)