

Technical Data Sheet

Biotin Rat Anti-Mouse CD9

Product Information

Material Number:	558749
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	KMC8
Immunogen:	(C57BL/6 x DBA/2)F1 mouse bone marrow-derived stromal cell line BMS2
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The KMC8 antibody reacts with CD9, a 24-kDa member of the transmembrane 4 superfamily. In the mouse, CD9 is present on bone marrow myeloid cells, stromal cells, and megakaryocyte-committed progenitors; subsets of peripheral T and B lymphocytes; and neutrophils, platelets, dendritic cells, and bone marrow-derived macrophages. CD9 has been found to be associated with integrins and other cell-surface receptors, and it is suggested to play a role in signal transduction and possibly in regulating cellular adhesive properties. It has also been demonstrated to participate in T-cell costimulation and induction of apoptosis. The KMC8 antibody has been reported to block certain CD9 functions and activate macrophages

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
553928	Biotin Rat IgG2a κ Isotype Control	0.25 mg	R35-95
554060	FITC Streptavidin	0.5 mg	(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.

References

- Jennings LK, Crossno JT Jr, Fox CF, White MM, Green CA. Platelet p24/CD9, a member of the tetraspanin family of proteins. *Ann N Y Acad Sci.* 1994; 714:175-184.(Biology)
- Kaji K, Takeshita S, Miyake K, Takai T, Kudo A. Functional association of CD9 with the Fc gamma receptors in macrophages. *J Immunol.* 2001; 166(5):3256-3265.(Clone-specific: Activation)
- Miyake K, Medina KL, Hayashi S, Ono S, Hamaoka T, Kincade PW. Monoclonal antibodies to Pgp-1/CD44 block lympho-hemopoiesis in long-term bone marrow cultures. *J Exp Med.* 1990; 171(2):477-488.(Immunogen)
- Nakorn TN, Miyamoto T, Weissman IL. Characterization of mouse clonogenic megakaryocyte progenitors. *Proc Natl Acad Sci U S A.* 2003; 100(1):205-210.(Biology)
- Oritani K, Wu X, Medina K. Antibody ligation of CD9 modifies production of myeloid cells in long-term cultures. *Blood.* 1996; 87(6):2252-2261.(Immunogen: Blocking)
- Park CS, Yashiro Y, Tai XG, et al. Differential involvement of a Fas-CPP32-like protease pathway in apoptosis of TCR/CD9-costimulated, naive T cells and TCR-restimulated, activated T cells. *J Immunol.* 1998; 160(12):5790-5796.(Clone-specific: Apoptosis, (Co)-stimulation)

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Pulendran B, Lingappa J, Kennedy MK, et al. Developmental pathways of dendritic cells in vivo: distinct function, phenotype, and localization of dendritic cell subsets in FLT3 ligand-treated mice. *J Immunol.* 1997; 159(5):2222-2231.(Biology)

Tanio Y, Yamazaki H, Kunisada T, Miyake K, Hayashi SI. CD9 molecule expressed on stromal cells is involved in osteoclastogenesis. *Exp Hematol.* 1999; 27(5):853-859.(Clone-specific: Blocking)

Wright MD, Tomlinson MG. The ins and outs of the transmembrane 4 superfamily. *Immunol Today.* 1994; 15(12):588-594.(Biology)