

Datasheet: MCA1268EL

Description:	MOUSE ANTI HUMAN CD39:Low Endotoxin
Specificity:	CD39
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	A1
Isotype:	IgG1
Quantity:	0.5 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			1/10 - 1/50
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation			■	
Western Blotting			■	
Immunofluorescence	■			
Functional Assays	■			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Carrier Free	Yes
Endotoxin Level	<0.01EU/ug
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen	PHA activated human lymphocytes
External Database Links	UniProt: P49961 Related reagents Entrez Gene: 953 ENTPD1 Related reagents
Synonyms	CD39
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line
Specificity	Mouse anti Human CD39, clone A1 recognizes the human CD39 cell surface antigen, a ~70-100 kDa molecule expressed on peripheral blood B cells, T cells and monocytes, and weakly expressed by granulocytes. CD39 has intrinsic ecto-ATPase activity (Wang et al. 1996), and expression can be induced on T cells and increased on B cells, as a late activation antigen (Maliszewski et al. 1994). Mouse anti Human CD39, clone A1 has been shown to block MHC independent target cell recognition by hapten-specific CTL (Scholzen et al. 2009).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood.
References	1. Aversa, G.G. <i>et al.</i> (1988) Detection of a late lymphocyte activation marker by A1, a new monoclonal antibody. Transplant Proc. 20 (1): 49-52. 2. Waugh, J.A. <i>et al.</i> (1989) Staining of normal and rejecting kidney using the activation panel. In: Leucocyte Typing IV. White cell differentiation antigens. Edited by Knapp, W. <i>et al.</i> Oxford University Press. p485. 3. Aversa, G.G. and Hall, B.M. (1989) Activation panel antigen expression on PBL activated by PHA or in MLR. In: Leucocyte Typing IV. White cell differentiation antigens. Edited by Knapp, W. <i>et al.</i> Oxford University Press, p.498. 4. Aversa, G.G. <i>et al.</i> (1989) Use of monoclonal antibodies to study in vivo and in vitro-activated lymphocytes. Transplant Proc. 21 (1 Pt 1): 349-50. 5. Stein, H. <i>et al.</i> (1989) Activated Section report. In: Leucocyte Typing IV. White cell differentiation antigens. Edited by Knapp, W. <i>et al.</i> Oxford University Press, p.387. 6. Suranyi, M.G. <i>et al.</i> (1991) Lymphocyte adhesion molecules in T cell-mediated lysis of human kidney cells. Kidney Int. 39 (2): 312-9. 7. Stöckl, J. <i>et al.</i> (2001) Monomorphic molecules function as additional recognition structures on haptenated target cells for HLA-A1-restricted, hapten-specific CTL. J Immunol. 167 (5): 2724-33. 8. Scholzen, A. <i>et al.</i> (2009) Plasmodium falciparum-mediated induction of human CD25Foxp3 CD4 T cells is independent of direct TCR stimulation and requires IL-2, IL-10 and TGFbeta. PLoS Pathog. 5: e1000543. 9. Borsellino, G. <i>et al.</i> (2007) Expression of ectonucleotidase CD39 by Foxp3+ Treg cells: hydrolysis of extracellular ATP and immune suppression Blood. 110:1225-32. 10. Mittag, D. <i>et al.</i> (2010) The effector T cell response to ryegrass pollen is counterregulated by simultaneous induction of regulatory T cells. J Immunol. 184: 4708-16. 11. Loeuillet, C. <i>et al.</i> (2008) In vitro whole-genome analysis identifies a susceptibility locus for HIV-1. PLoS Biol. 6: e32. 12. Rawstron, A.C. <i>et al.</i> (2010) Chronic lymphocytic leukaemia (CLL) and CLL-type monoclonal B-cell lymphocytosis (MBL) show differential expression of molecules involved in lymphoid tissue

homing. [Cytometry B Clin Cytom. 78 Suppl 1: S42-6.](#)

13. Alam, M.S. *et al.* (2009) CD73 is expressed by human regulatory T helper cells and suppresses proinflammatory cytokine production and Helicobacter felis-induced gastritis in mice. [J Infect Dis. 199: 494-504.](#)

14. Moreno-Fernandez, M.E. *et al.* (2011) Regulatory T cells control HIV replication in activated T cells through a cAMP-dependent mechanism. [Blood. 117: 5372-80.](#)

15. Guevara-Flores, A. *et al.* (2008) 5'-p-Fluorosulfonyl benzoyl adenosine inhibits an ecto-ATP-diphosphohydrolase in the tegument surface of Taenia crassiceps cysticerci. [Mol Biochem Parasitol. 162: 123-33.](#)

16. Glenn, J.R. *et al.* (2008) Raised levels of CD39 in leucocytosis result in marked inhibition of ADP-induced platelet aggregation via rapid ADP hydrolysis. [Platelets. 19: 59-69.](#)

17. Häusler SF *et al.* (2014) Anti-CD39 and anti-CD73 antibodies A1 and 7G2 improve targeted therapy in ovarian cancer by blocking adenosine-dependent immune evasion. [Am J Transl Res. 6 \(2\): 129-39.](#)

Storage

Store at -20°C only.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10162 available at:
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin \(MCA928EL\)](#)

'M315217:180503'

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