

## Datasheet: MCA1305GA

**BATCH NUMBER 173293**

<b>Description:</b>	MOUSE ANTI HUMAN CD57
<b>Specificity:</b>	CD57
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	TB01
<b>Isotype:</b>	IgM
<b>Quantity:</b>	0.1 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen	▪			1/10 - 1/100
Immunohistology - Paraffin (1)	▪			1/10 - 1/50
ELISA			▪	
Immunoprecipitation		▪		
Western Blotting		▪		

Where this product 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 product for use in their own system using appropriate negative/positive controls.

**(1) This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections but sodium citrate buffer may enhance staining.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgM - liquid
<b>Preparation</b>	Purified IgM prepared by ion exchange chromatography from ascites
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )

<b>Approx. Protein Concentrations</b>	IgM concentration 1mg/ml
<b>Immunogen</b>	Human neuroblastoma cells.
<b>RRID</b>	AB_2063195
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3.X63 Ag8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD57 antibody, clone TB01</b>, recognizes CD57, also known as HNK-1, Leu-7 and NK-1.</p> <p>CD57 is an oligosaccharide antigenic determinant present on a variety of polypeptides, lipids and chondroitin sulphate proteoglycans. It is expressed on a subset of peripheral blood lymphocytes, including CD8+ T cells and NK cells. The function of CD57 is poorly understood. CD57 binding to laminin and certain selectins suggests it may be involved in cell-cell and cell-matrix interactions.</p> <p>CD57 is used as a marker for terminally differentiated 'senescent' cells with reduced proliferative capacity and altered functional properties. CD57 expression in CD8+ cells identifies those with reduced proliferative responses to T cell receptor triggering and increased susceptibility to antigen-induced apoptosis. CD57+ T lymphocytes are found at a higher frequency in a variety of diseases. CD57 expression is increased on chronically activated CD8+ T cells in persistent viral infections, such as HIV.</p> <p>Mouse anti human CD57, clone TB01, is also available as a recombinant antibody (<a href="#">TZA1305</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl.
<b>Histology Positive Control Tissue</b>	Human tonsil
<b>References</b>	<ol style="list-style-type: none"> <li>Funaro, A. <i>et al.</i> (1995) Epitope analysis of human CD57 by means of a panel of newly-generated high-affinity murine monoclonal antibodies. In: Leucocyte Typing V: White Cell Differentiation Antigens.</li> <li>Funaro, A. <i>et al.</i> (1995) Human CD57, a link molecule between leucocyte and neural cells. In: Leucocyte Typing V: White Cell Differentiation Antigens.</li> <li>Slyker, J.A. <i>et al.</i> (2011) Phenotypic Characterization of HIV-Specific CD8 T Cells during Early and Chronic Infant HIV-1 Infection. <a href="#">PLoS One. 6: e20375.</a></li> <li>Nunes, C. <i>et al.</i> (2012) Expansion of a CD8+PD-1+ Replicative Senescence Phenotype in Early Stage CLL Patients Is Associated with Inverted CD4:CD8 Ratios and Disease Progression. <a href="#">Clin Cancer Res. 18: 678-87.</a></li> <li>Khan, N. <i>et al.</i> (2002) Cytomegalovirus seropositivity drives the CD8 T cell repertoire toward greater clonality in healthy elderly individuals. <a href="#">J Immunol. 169: 1984-92.</a></li> <li>Alejenef, A. <i>et al.</i> (2014) Cytomegalovirus drives Vδ2neg &amp;gammaδ T cell inflation in many healthy virus carriers with increasing age. <a href="#">Clin Exp Immunol. 176 (3): 418-28.</a></li> </ol>

7. Frahm, M. *et al.* (2012) CD4+CD8+ T cells represent a significant portion of the anti-HIV T cell response to acute HIV infection. [J Immunol. 188: 4289-96.](#)
8. Wang, Y. *et al.* (2009) Characteristics of expanded CD4+CD28null T cells in patients with chronic hepatitis B. [Immunol Invest. 38: 434-46.](#)
9. Lim, H.W. and Kim, C.H. (2007) Loss of IL-7 receptor alpha on CD4+ T cells defines terminally differentiated B cell-helping effector T cells in a B cell-rich lymphoid tissue. [J Immunol. 179: 7448-56.](#)
10. Björkström, N.K. *et al.* (2012) CD8 T cells express randomly selected KIRs with distinct specificities compared with NK cells. [Blood. 120: 3455-65.](#)
11. Slyker, J.A. *et al.* (2012) The impact of HIV-1 infection and exposure on natural killer (NK) cell phenotype in Kenyan infants during the first year of life. [Front Immunol. 3: 399.](#)
12. Perlingeiro Beltrame, M. *et al.* (2014) Immune reconstitution in patients with Fanconi anemia after allogeneic bone marrow transplantation. [Cytotherapy. 16: 976-89.](#)
13. Suárez, G.M. *et al.* (2021) Associations among cytokines, EGF and lymphocyte subpopulations in patients diagnosed with advanced lung cancer. [Cancer Immunol Immunother. 70 \(6\): 1735-43.](#)

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<b>Storage</b>	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.
	Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1305GA">https://www.bio-rad-antibodies.com/SDS/MCA1305GA</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgM (STAR138...) [Alk. Phos.](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)

### Recommended Negative Controls

[MOUSE IgM NEGATIVE CONTROL \(MCA692\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
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