

## Datasheet: MCA1314

<b>Description:</b>	MOUSE ANTI HUMAN CD60
<b>Specificity:</b>	CD60
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	M-T6004
<b>Isotype:</b>	IgM
<b>Quantity:</b>	2 ml

## Product Details

**RRID** AB\_321514

**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	▪			Neat
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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

**Species Cross Reactivity** Reacts with: Rainbow Trout  
**N.B.** Antibody reactivity and working conditions may vary between species.

**Product Form** Purified IgM - liquid

**Preparation** Purified IgM prepared by gel filtration from tissue culture supernatant

**Buffer Solution** Phosphate buffered saline

**Preservative Stabilisers** 0.09% Sodium Azide  
 1% Bovine Serum Albumin

**Approx. Protein Concentrations** IgM concentration 100ug/ml

<b>Immunogen</b>	Purified CD60 antigen from PBL; 9-O-acetyl-GD3 from buttermilk
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the P3. X63.Ag.8653 mouse myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD60 antibody, clone M-T6004</b> recognizes the human CD60 antigen, a carbohydrate structure GD3 (Neu5Ac<math>\alpha</math>8Neu5Ac<math>\alpha</math>3Gal<math>\beta</math>4GlcCer) modified by a terminal 9-O-acetylated disialosyl group (9-O-acetyl GD3). Mouse anti human CD60 antibody clone M-T6004 does not recognize 7-O-acetyl GD3 or non-acetylated GD3. CD60 has been divided into 3 sub-types depending on the acetylation present. Non acetylated GD3 is termed CD60a and 7-O-acetyl GD3 termed CD60c. 9-O-acetyl GD3 as recognized by clone M-T6004 has been designated CD60b.</p> <p>CD60b is present on CD8<sup>+ve</sup> helper T cells (<a href="#">Rieber and Rank 1994</a>), CD4<sup>+ve</sup> memory T cells and on activated B cells (<a href="#">Vater et al. 1997</a>). Expression has also been reported on neuroectodermal cells (<a href="#">Carr et al. 1995</a>) and in breast carcinomas (<a href="#">Gocht et al. 1998</a>). CD60b is not expressed by naive T cells (<a href="#">Wada et al. 1998</a>). GD3 has been described as a pro-apoptotic messenger targeting mitochondria in many lymphoid and myeloid cell types (<a href="#">García-Ruiz et al. 2000</a>). Acetylation abrogates the pro-apoptotic activity of GD3 (<a href="#">Malisan et al. 2002</a>) and CD60b protects tumor cells from apoptosis (<a href="#">Kniep et al. 2006</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Rieber, E.P. &amp; Rank, G. (1994) CDw60: a marker for human CD8+ T helper cells. <a href="#">J Exp Med. 179 (4): 1385-90.</a></li> <li>2. Saalmuller, A. et al. (2007) Summary of the animal homologue section of HLDA8. <a href="#">Vet Immunol Immunopathol. 119: 2-13.</a></li> <li>3. Malisan, F. et al. (2002) Acetylation suppresses the proapoptotic activity of GD3 ganglioside. <a href="#">J Exp Med. 196: 1535-41.</a></li> <li>4. Kniep, B. et al. (2006) 9-O-acetyl GD3 protects tumor cells from apoptosis. <a href="#">Int J Cancer. 119: 67-73.</a></li> <li>5. Erdmann, M. et al. (2006) Differential surface expression and possible function of 9-O- and 7-O-acetylated GD3 (CD60 b and c) during activation and apoptosis of human tonsillar B and T lymphocytes. <a href="#">Glycoconj J. 23: 627-38.</a></li> <li>6. Fischer, U. and Koellner, B. (2007) Cross-reactivity of human leukocyte differentiation antigen monoclonal antibodies on carp and rainbow trout cells. <a href="#">Vet Immunol Immunopathol. 119: 142-55.</a></li> <li>7. Mukherjee, K. et al. (2008) O-acetylation of GD3 prevents its apoptotic effect and promotes survival of lymphoblasts in childhood acute lymphoblastic leukaemia <a href="#">J Cell Biochem. 105: 724-34.</a></li> <li>8. Schauer, R. et al. (2011) O-Acetylated sialic acids and their role in immune defense. <a href="#">Adv Exp Med Biol. 705: 525-48.</a></li> <li>9. Belov, L. et al. (2017) Surface Profiling of Extracellular Vesicles from Plasma or Ascites Fluid Using DotScan Antibody Microarrays. <a href="#">Methods Mol Biol. 1619: 263-301.</a></li> </ol>
<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>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.</p>
<b>Shelf Life</b>	18 months from date of despatch.

**Health And Safety Information** Material Safety Datasheet documentation #10041 available at:  
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

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

Goat Anti Mouse IgM (STAR86...) [RPE](#)

Human Anti Mouse IgM (HCA040...) [FITC](#)

### Recommended Negative Controls

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

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