

## Datasheet: MCA485G

<b>Description:</b>	RAT ANTI HUMAN HLA ABC
<b>Specificity:</b>	HLA ABC
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YTH862.2
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.2 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	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			
Functional Assays (1)	▪			

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.

**(1) This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide

## Stabilisers

---

**Carrier Free** Yes

---

**Approx. Protein Concentrations** IgG concentration 1.0 mg/ml

---

**Immunogen** PHA activated human peripheral blood lymphocytes.

---

**RRID** AB\_567133

---

**Fusion Partners** Spleen cells from immunized DA rats were fused with cells of the rat Y3 myeloma cell line.

---

**Specificity** **Rat anti Human HLA ABC antibody, clone YTH862.2** recognizes a monomorphic determinant on the human HLA Class I heavy chain. Epitope analysis has shown that this antibody binds in the alpha1 domain.

The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In humans, this complex is referred to as the human leukocyte antigen (HLA) region. There are 3 major MHC class I proteins encoded by the HLA which are HLA A, HLA B and HLA C. These proteins are found on the surface of almost all nucleated somatic cells.

Rat anti Human HLA ABC antibody, clone YTH862.2 may be able to induce apoptosis in activated but not resting T cells ([Genestier et al. 1997](#)).

---

**Flow Cytometry** Use 10ul of the suggested working dilution to label  $10^6$  cells in 100ul.

---

**References**

- Schmidt, C.M. *et al.* (1997) Cytotoxic T lymphocyte recognition of HLA-G in mice. [Hum Immunol. 55 \(2\): 127-39.](#)
- Genestier, L. *et al.* (1997) Antibodies to HLA class I alpha1 domain trigger apoptosis of CD40-activated human B lymphocytes. [Blood. 90 \(2\): 726-35.](#)
- Genestier, L. *et al.* (1997) Fas-independent apoptosis of activated T cells induced by antibodies to the HLA class I alpha1 domain. [Blood. 90 \(9\): 3629-39.](#)
- Genestier, L. *et al.* (1998) Caspase-dependent ceramide production in Fas- and HLA class I-mediated peripheral T cell apoptosis. [J Biol Chem. 273 \(9\): 5060-6.](#)
- Tanaka, J. *et al.* (2004) Cytolytic activity and regulatory functions of inhibitory NK cell receptor-expressing T cells expanded from granulocyte colony-stimulating factor-mobilized peripheral blood mononuclear cells. [Blood. 104 \(3\): 768-74.](#)
- Schmidt, J. *et al.* (2004) Upregulated inducible co-stimulator (ICOS) and ICOS-ligand in inclusion body myositis muscle: significance for CD8+ T cell cytotoxicity. [Brain. 127: 1182-90.](#)
- Liu, S. *et al.* (2005) Cross-talk between Schwann cells and neuroblasts influences the biology of neuroblastoma xenografts. [Am J Pathol. 166 \(3\): 891-900.](#)
- Schmidt, J. *et al.* (2008) Interrelation of inflammation and APP in sIBM: IL-1 beta induces accumulation of beta-amyloid in skeletal muscle. [Brain. 131 \(Pt 5\): 1228-40.](#)
- Muth, I.E. *et al.* (2009) Proinflammatory cell stress in sporadic inclusion body myositis muscle: overexpression of alphaB-crystallin is associated with amyloid precursor protein

- and accumulation of beta-amyloid. [J Neurol Neurosurg Psychiatry. 80: 1344-9.](#)
10. Muth, I.E. *et al.* (2015) HMGB1 and RAGE in skeletal muscle inflammation: Implications for protein accumulation in inclusion body myositis. [Exp Neurol. 271: 189-97.](#)
11. Limozin, L. *et al.* (2016) A Rough Energy Landscape to Describe Surface-Linked Antibody and Antigen Bond Formation. [Sci Rep. 6: 35193.](#)
12. Schmidt, K. *et al.* (2016) Molecular treatment effects of alemtuzumab in skeletal muscles of patients with IBM. [BMC Neurol. 16 \(1\): 48.](#)
13. Olivero, C. *et al.* (2019) Identification of Human Cutaneous Squamous Cell Carcinoma Cancer Stem Cells. [Methods Mol Biol. 1879: 415-33.](#)
14. Kummer, K. *et al.* (2023) Inflammasome in Skeletal Muscle: NLRP3 Is an Inflammatory Cell Stress Component in Inclusion Body Myositis. [Int J Mol Sci. 24 \(13\): 10675.](#)

---

**Storage** 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.

---

**Guarantee** 12 months from date of despatch

---

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA485G10040>

---

**Regulatory** For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

### Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL \(MCA6006GA\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

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

'M384357:210513'

