

## Datasheet: MCA1033GA

<b>Description:</b>	RAT ANTI MOUSE CD71
<b>Specificity:</b>	CD71
<b>Other names:</b>	TRANSFERRIN RECEPTOR
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YTA74.4
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.1 mg

## Product Details

**RRID** AB\_324703

**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	▪			
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** Mouse

**Product Form** Purified IgG - liquid

**Preparation** Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution** Phosphate buffered saline

**Preservative Stabilisers** 0.09% Sodium Azide

**Carrier Free** Yes

**Approx. Protein Concentrations** IgG concentration 1 mg/ml

<b>Immunogen</b>	Concanavilin A activated mouse spleen cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q62351</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">22042</a>    Tfr    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Tfr
<b>Fusion Partners</b>	Spleen cells from an immunised DA rat were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD71 antibody, clone YTA74.4</b> recognizes the mouse Transferrin receptor protein 1 also known as CD71 or TfR1. CD71 is a 763 amino acid glycoprotein homodimer of ~95 kDa subunits. CD71 is expressed by dividing cells, and functions as a transferrin receptor mediating uptake of iron.</p> <p>Rat anti Mouse CD71 antibody, clone YTA74.4 blocks the binding of R17 217.1.3. and R17 208.2 anti-TFR monoclonal antibodies (<a href="#">Trowbridge et al. 1982</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Lesley, J. <i>et al.</i> (1984) Expression of transferrin receptor on murine hematopoietic progenitors. <a href="#">Cell Immunol. 83 (1): 14-25.</a></li> <li>2. Trowbridge, I.S. <i>et al.</i> (1982) Murine cell surface transferrin receptor: studies with an anti-receptor monoclonal antibody. <a href="#">J Cell Physiol. 112 (3): 403-10.</a></li> <li>3. Millot, S. <i>et al.</i> (2010) Erythropoietin stimulates spleen BMP4-dependent stress erythropoiesis and partially corrects anemia in a mouse model of generalized inflammation. <a href="#">Blood. 116: 6072-81.</a></li> <li>4. Kuo, Y.M. <i>et al.</i> (2004) Mislocalisation of hephaestin, a multicopper ferroxidase involved in basolateral intestinal iron transport, in the sex linked anaemia mouse. <a href="#">Gut. 53: 201-6.</a></li> <li>5. Krysiak, K. <i>et al.</i> (2014) Reduced Levels of Hspa9 Attenuates Stat5 Activation in Mouse B-cells. <a href="#">Exp Hematol. pii: S0301-472X(14)00817-0.</a></li> <li>6. Byun, M. <i>et al.</i> (2007) Cowpox virus exploits the endoplasmic reticulum retention pathway to inhibit MHC class I transport to the cell surface. <a href="#">Cell Host Microbe. 2: 306-15.</a></li> <li>7. Ripich, T. and Jessberger, R. (2011) SWAP-70 regulates erythropoiesis by controlling <math>\alpha 4</math> integrin. <a href="#">Haematologica. 96: 1743-52.</a></li> <li>8. Niewoehner, J. <i>et al.</i> (2014) Increased brain penetration and potency of a therapeutic antibody using a monovalent molecular shuttle. <a href="#">Neuron. 81: 49-60.</a></li> <li>9. Sands, S.A. <i>et al.</i> (2015) The habenula and iron metabolism in cerebral mouse models of multiple sclerosis. <a href="#">Neurosci Lett. 606: 204-8.</a></li> <li>10. Baumann, B. <i>et al.</i> (2017) Conditional Müller Cell Ablation Leads to Retinal Iron Accumulation. <a href="#">Invest Ophthalmol Vis Sci. 58 (10): 4223-34.</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>

**Guarantee** 18 months from date of despatch.

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

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

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