

Datasheet: MCA1033PET

Description:	RAT ANTI MOUSE CD71:RPE
Specificity:	CD71
Other names:	TRANSFERRIN RECEPTOR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	YTA74.4
Isotype:	IgG2a
Quantity:	25 TESTS

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	■			Neat

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 conjugated to R. Phycoerythrin (RPE) - lyophilized						
Reconstitution	Reconstitute in 0.25 ml distilled water						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>RPE 488nm laser</td> <td>496</td> <td>578</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	RPE 488nm laser	496	578
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
RPE 488nm laser	496	578					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% Sodium Azide						
Stabilisers	1% Bovine Serum Albumin 5% Sucrose						
Immunogen	Concanavilin A activated mouse spleen cells.						
External Database Links	UniProt: Q62351 Related reagents						

Entrez Gene:

[22042](#) Tfrc [Related reagents](#)

Synonyms	Tfr
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Fusion Partners	Spleen cells from an immunised DA rat were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
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Specificity	<p>Rat anti Mouse CD71 antibody, clone YTA74.4 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 (Trowbridge et al. 1982).</p>
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Flow Cytometry	<p>Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.</p> <p>The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).</p>
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References	<ol style="list-style-type: none">1. Lesley, J. <i>et al.</i> (1984) Expression of transferrin receptor on murine hematopoietic progenitors. Cell Immunol. 83 (1): 14-25.2. Trowbridge, I.S. <i>et al.</i> (1982) Murine cell surface transferrin receptor: studies with an anti-receptor monoclonal antibody. J Cell Physiol. 112 (3): 403-10.3. 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. Blood. 116: 6072-81.4. 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. Gut. 53: 201-6.5. Krysiak, K. <i>et al.</i> (2014) Reduced Levels of Hspa9 Attenuates Stat5 Activation in Mouse B-cells. Exp Hematol. pii: S0301-472X(14)00817-0.6. 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. Cell Host Microbe. 2: 306-15.7. Ripich, T. and Jessberger, R. (2011) SWAP-70 regulates erythropoiesis by controlling $\alpha 4$ integrin. Haematologica. 96: 1743-52.8. Niewoehner, J. <i>et al.</i> (2014) Increased brain penetration and potency of a therapeutic antibody using a monovalent molecular shuttle. Neuron. 81: 49-60.9. Sands, S.A. <i>et al.</i> (2015) The habenula and iron metabolism in cerebral mouse models of multiple sclerosis. Neurosci Lett. 606: 204-8.10. Baumann, B. <i>et al.</i> (2017) Conditional Müller Cell Ablation Leads to Retinal Iron Accumulation. Invest Ophthalmol Vis Sci. 58 (10): 4223-34.
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Storage	<p>Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.</p> <p>DO NOT FREEZE.</p> <p>This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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Shelf Life	12 months from date of reconstitution.
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Health And Safety	Material Safety Datasheet documentation #10075 available at:
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Information 10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA1212PE\)](#)

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