

## Datasheet: MCA772A647

<b>Description:</b>	MOUSE ANTI RAT CD3:Alexa Fluor® 647
<b>Specificity:</b>	CD3
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1F4
<b>Isotype:</b>	IgM
<b>Quantity:</b>	100 TESTS/1ml

## 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	▪			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.

<b>Target Species</b>	Rat		
<b>Product Form</b>	Purified IgM conjugated to Alexa Fluor® 647 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgM concentration 0.05 mg/ml		
<b>Immunogen</b>	F344 rat T cells stimulated with PMA (TPA) and calcium ionophore		
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P19377</a> <a href="#">Related reagents</a> <a href="#">Q64159</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">25710</a> Cd3d <a href="#">Related reagents</a>		

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<b>Synonyms</b>	T3d
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<b>RRID</b>	AB_566695
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<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the P3-X63-Ag8.653 mouse myeloma cell line.
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<b>Specificity</b>	<p><b>Mouse anti Rat CD3 antibody, clone 1F4</b> recognizes rat CD3, a ~25 kDa antigen which is found on rat T-cells. Mouse anti Rat CD3, clone 1F4 does not react with rat B cells. In immunohistology it stains rat thymus tissues strongly in the medulla and weakly in the cortex.</p> <p>Functionally the addition of the antibody to a culture of rat T cells induces the proliferation of T-cells in the presence of PMA.</p>
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Tanaka, T. <i>et al.</i> (1989) Characterization of a CD3-like rat T cell surface antigen recognized by a monoclonal antibody. <a href="#">J Immunol. 142 (8): 2791-5.</a></li><li>2. Nicolls, M.G. <i>et al.</i> (1992) Induction of long-term specific tolerance to allografts in rats by therapy with an anti-CD3-like monoclonal antibody. <a href="#">Transplantation 55: 459-68.</a></li><li>3. McKechnie NM <i>et al.</i> (1997) Immunization with the cross-reactive antigens Ov39 from <i>Onchocerca volvulus</i> and hr44 from human retinal tissue induces ocular pathology and activates retinal microglia. <a href="#">J Infect Dis. 176 (5): 1334-43.</a></li><li>4. Lohwasser, C. <i>et al.</i> (2009) Role of the receptor for advanced glycation end products in hepatic fibrosis. <a href="#">World J Gastroenterol. 15: 5789-98.</a></li><li>5. Beck, K.D. <i>et al.</i> (2010) Quantitative analysis of cellular inflammation after traumatic spinal cord injury: evidence for a multiphasic inflammatory response in the acute to chronic environment. <a href="#">Brain. 133: 433-47.</a></li><li>6. Candolfi, M. <i>et al.</i> (2007) Intracranial glioblastoma models in preclinical neuro-oncology: neuropathological characterization and tumor progression. <a href="#">J Neurooncol. 85: 133-48.</a></li><li>7. Sanchez-Guajardo, V. <i>et al.</i> (2010) Microglia acquire distinct activation profiles depending on the degree of alpha-synuclein neuropathology in a rAAV based model of Parkinson's disease. <a href="#">PLoS One. 5: e8784.</a></li><li>8. Echeverry, S. <i>et al.</i> (2011) Peripheral Nerve Injury Alters Blood-Spinal Cord Barrier Functional and Molecular Integrity through a Selective Inflammatory Pathway. <a href="#">J Neurosci. 31: 10819-28.</a></li><li>9. Takahashi Y <i>et al.</i> (2016) Rituximab protects podocytes and exerts anti-proteinuric effects in rat adriamycin-induced nephropathy independent of B-lymphocytes. <a href="#">Nephrology (Carlton). Feb 2. [Epub ahead of print]</a></li><li>10. Sun, J. <i>et al.</i> (2017) Pentapeptide PLNPK ameliorates adjuvant arthritis and inhibits T cell activation by suppressing Lck and PI3K activities <a href="#">Int J Clin Exp Pathol 10(5): 5252-62.</a></li></ol>
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<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. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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**Guarantee** 12 months from date of despatch

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**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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