

## Datasheet: MCA772A700

<b>Description:</b>	MOUSE ANTI RAT CD3:Alexa Fluor® 700
<b>Specificity:</b>	CD3
<b>Format:</b>	ALEXA FLUOR® 700
<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® 700 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®700	702	723
<b>Preparation</b>	Purified IgM prepared by ammonium sulphate precipitation from tissue culture supernatant		
<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>	

**Entrez Gene:**

[25710](#) Cd3d [Related reagents](#)  
[300678](#) Cd3g [Related reagents](#)

**Synonyms**

T3d

**RRID**

AB\_2073345

**Fusion Partners**

Spleen cells from immunised BALB/c mice were fused with cells of the P3-X63-Ag8.653 mouse myeloma cell line.

**Specificity**

**Mouse anti Rat CD3 antibody, clone 1F4** 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.

Functionally the addition of the antibody to a culture of rat T cells induces the proliferation of T-cells in the presence of PMA.

**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

**References**

1. Tanaka, T. *et al.* (1989) Characterization of a CD3-like rat T cell surface antigen recognized by a monoclonal antibody. [J Immunol. 142 \(8\): 2791-5.](#)
2. Nicolls, M.G. *et al.* (1992) Induction of long-term specific tolerance to allografts in rats by therapy with an anti-CD3-like monoclonal antibody. [Transplantation 55: 459-68.](#)
3. McKechnie NM *et al.* (1997) Immunization with the cross-reactive antigens Ov39 from *Onchocerca volvulus* and hr44 from human retinal tissue induces ocular pathology and activates retinal microglia. [J Infect Dis. 176 \(5\): 1334-43.](#)
4. Lohwasser, C. *et al.* (2009) Role of the receptor for advanced glycation end products in hepatic fibrosis. [World J Gastroenterol. 15: 5789-98.](#)
5. Beck, K.D. *et al.* (2010) Quantitative analysis of cellular inflammation after traumatic spinal cord injury: evidence for a multiphasic inflammatory response in the acute to chronic environment. [Brain. 133: 433-47.](#)
6. Candolfi, M. *et al.* (2007) Intracranial glioblastoma models in preclinical neuro-oncology: neuropathological characterization and tumor progression. [J Neurooncol. 85: 133-48.](#)
7. Sanchez-Guajardo, V. *et al.* (2010) Microglia acquire distinct activation profiles depending on the degree of alpha-synuclein neuropathology in a rAAV based model of Parkinson's disease. [PLoS One. 5: e8784.](#)
8. Echeverry, S. *et al.* (2011) Peripheral Nerve Injury Alters Blood-Spinal Cord Barrier Functional and Molecular Integrity through a Selective Inflammatory Pathway. [J Neurosci. 31: 10819-28.](#)
9. Takahashi Y *et al.* (2016) Rituximab protects podocytes and exerts anti-proteinuric effects in rat adriamycin-induced nephropathy independent of B-lymphocytes. [Nephrology \(Carlton\). Feb 2. \[Epub ahead of print\]](#)
10. Sun, J. *et al.* (2017) Pentapeptide PLNPK ameliorates adjuvant arthritis and inhibits T cell activation by suppressing Lck and PI3K activities [Int J Clin Exp Pathol 10\(5\): 5252-62.](#)

**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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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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