

Datasheet: MCA772FA

Description:	MOUSE ANTI RAT CD3:FITC
Specificity:	CD3
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	1F4
Isotype:	IgM
Quantity:	50 µg

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 - 1/5

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	Rat		
Product Form	Purified IgM conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgM concentration 0.1 mg/ml		
Immunogen	F344 rat T cells stimulated with PMA (TPA) and calcium ionophore		

External Database Links

UniProt:

[P19377](#) [Related reagents](#)

[Q64159](#) [Related reagents](#)

Entrez Gene:

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

Synonyms	T3d
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Fusion Partners	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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Specificity	<p>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.</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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Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
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References	<ol style="list-style-type: none">1. Tanaka, T. <i>et al.</i> (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. <i>et al.</i> (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 <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. J Infect Dis. 176 (5): 1334-43.4. Lohwasser, C. <i>et al.</i> (2009) Role of the receptor for advanced glycation end products in hepatic fibrosis. World J Gastroenterol. 15: 5789-98.5. 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. Brain. 133: 433-47.6. Candolfi, M. <i>et al.</i> (2007) Intracranial glioblastoma models in preclinical neuro-oncology: neuropathological characterization and tumor progression. J Neurooncol. 85: 133-48.7. 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. PLoS One. 5: e8784.8. Echeverry, S. <i>et al.</i> (2011) Peripheral Nerve Injury Alters Blood-Spinal Cord Barrier Functional and Molecular Integrity through a Selective Inflammatory Pathway. J Neurosci. 31: 10819-28.9. Takahashi Y <i>et al.</i> (2016) Rituximab protects podocytes and exerts anti-proteinuric effects in rat adriamycin-induced nephropathy independent of B-lymphocytes. Nephrology (Carlton). Feb 2. [Epub ahead of print]10. Sun, J. <i>et al.</i> (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.
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Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. 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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Shelf Life	18 months from date of despatch.
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Health And Safety	Material Safety Datasheet documentation #10041 available at:
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Information10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

RegulatoryFor research purposes only

North & South Tel: +1 800 265 7376**America** Fax: +1 919 878 3751Email: antibody_sales_us@bio-rad.com**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

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