

Datasheet: MCA772GA

Description:	MOUSE ANTI RAT CD3
Specificity:	CD3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1F4
Isotype:	IgM
Quantity:	0.1 mg

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	■			1/10 - 1/25
Immunohistology - Frozen	■			1/10 - 1/25
Immunohistology - Paraffin (1)	■			1/10
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.

(1) **This clone is suitable for use on paraffin embedded material using target unmasking fluid HIS003B, refer to [McKechnie N.M. et al.](#) for details.**

Target Species	Rat
Product Form	Purified IgM - liquid
Preparation	Purified IgM prepared by ammonium sulphate precipitation from tissue culture supernatant.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgM concentration 1 mg/ml
Immunogen	F344 rat T cells stimulated with PMA (TPA) and calcium ionophore
External Database	UniProt:

Links

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

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

Entrez Gene:

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

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

Synonyms

T3d

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 10^6 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. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend

microcentrifugation before use.

Shelf Life	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

Goat Anti Mouse IgM (STAR86...) [RPE](#)
Goat Anti Mouse IgM (STAR138...) [Alk. Phos.](#)
Human Anti Mouse IgM (HCA040...) [FITC](#), [HRP](#)
Goat Anti Mouse IgM (102001...) [HRP](#)

North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: 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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