Datasheet: MCA772

BATCH NUMBER 165883

Description:	MOUSE ANTI RAT CD3
Specificity:	CD3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1F4
Isotype:	IgM
Quantity:	0.2 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 1.0 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 300678 Cd3g Related reagents
Synonyms	T3d
RRID	AB_321258
Fusion Partners	Spleen cells from immunized 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. 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. 2. 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. 3. Candolfi, M. *et al.* (2007) Intracranial glioblastoma models in preclinical neuro-oncology: neuropathological characterization and tumor progression. J Neurooncol. 85: 133-48. 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. 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. 6. 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. 7. 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.
8. Takahashi, Y. *et al.* (2017) Rituximab protects podocytes and exerts anti-proteinuric effects in rat adriamycin-induced nephropathy independent of B-lymphocytes. Nephrology (Carlton). 22 (1): 49-57.
9. 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.
10. Du, K. *et al.* (2023) Pathogenesis of selective damage of granule cell layer in cerebellum of rats exposed to methylmercury J Toxicolog Sci. 48 (7): 429-39.

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA772 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgM (STAR138...) Alk. Phos.
Human Anti Mouse IgM (HCA040...) FITC, HRP
Goat Anti Mouse IgM (102001...) HRP

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M381503:210512'

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