Datasheet: MCA155EL

BATCH NUMBER 147770

Description:	MOUSE ANTI RAT CD71:Low Endotoxin
Specificity:	CD71
Other names:	TRANSFERRIN RECEPTOR
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	OX-26
Isotype:	IgG2a
Quantity:	0.5 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 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			

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 IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative	None present.

Stabilisers	
Carrier Free	Yes
Endotoxin Level	<0.01EU/ug
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	PHA activated rat lymphocytes.
External Database Links	**UniProt:** Q99376 Related reagents **Entrez Gene:** 64678 Tfrc Related reagents
Synonyms	Trfr
RRID	AB_2201357
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells from the NS1 mouse myeloma cell line.
Specificity	**Mouse anti Rat CD71 antibody, clone OX-26** recognizes rat CD71, also known as transferrin receptor, a homodimeric type II transmembrane protein, expressed by all proliferating cells and cells with a requirement for iron, including reticulocytes and capillary endothelium in brain. Clone 0X-26 also binds to a number of non-dividing normal tissues. The balance between a sufficient amount of iron uptake and prevention of accumulation of excess iron within a cell, is vitally important to maintain cellular functions such as oxygen and electron transport and mitochondrial energy metabolism, whilst preventing permanent cell and tissue damage. Transferrin receptor (CD71), transferrin and ferritin have been identified as specialised proteins which control the uptake, transport and storage of free iron in tissues, thereby maintaining iron homeostasis (Crihton *et al.* 1992). An imbalance in iron homeostasis within the brain has been linked with the neurodegenerative diseases, Alzheimer's, Parkinson's, Huntington's and Multiple Sclerosis (Benarroch 2009). Mouse anti rat CD71 clone OX-26 is reported as suitable for use in immunoelectron microscopy (Lipardi *et al.* 2002). OX-26 detects a band of ~95kDa in Western blotting under reducing conditions and ~195 kDa under non-reducing conditions reflecting it's homodimeric structure.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Jefferies, W.A. *et al.* (1985) Analysis of lymphopoietic stem cells with a monoclonal

antibody to the rat transferrin receptor. Immunology. 54 (2): 333-41.
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19. Loureiro, J.A. *et al.* (2015) Dual ligand immunoliposomes for drug delivery to the brain. Colloids Surf B Biointerfaces. 134: 213-9.
20. Picard, E. *et al.* (2015) Targeting iron-mediated retinal degeneration by local delivery of transferrin. Free Radic Biol Med. 89: 1105-21.

21. Chen, C.N. *et al.* (2023) Restoration of Foxp3(+) Regulatory T Cells by HDAC-Dependent Epigenetic Modulation Plays a Pivotal Role in Resolving Pulmonary Arterial Hypertension Pathology. Am J Respir Crit Care Med. 208 (8): 879-95.

Storage	Store at -20°C only. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: https://www.bio-rad-antibodies.com/SDS/MCA155EL 10162
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA1210)

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

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

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