Datasheet: MCA729F

Description:	MOUSE ANTI RAT CD147:FITC
Specificity:	CD147
Other names:	NEUROTHELIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	OX-47
Isotype:	IgG1
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	▪			Neat - 1/10

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.1 mg/ml

Immunogen	T blasts from a mixed lymphocyte reaction.
External Database Links	**UniProt:** P26453 Related reagents **Entrez Gene:** 25246 Bsg Related reagents
RRID	AB_2066963
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells from the NS0/1 mouse myeloma cell line.
Specificity	**Mouse anti Rat CD147 antibody, clone OX-47** recognizes a membrane glycoprotein of ~42-48 kDa expressed at high levels on activated lymphocytes but lower levels on resting cells (Paterson *et al.* 1987). CD147 is also present on some endothelia (Fossum *et al.* 1991). The OX-47 antigen contains two Ig-like domains and an unusual transmembrane domain with a charged residue (Fossum *et al.* 1991). CD147 is abundant on activated lymphocytes: it is the homologue of the chicken blood brain barrier antigen HT7. Mouse anti Rat CD147 antibody, clone OX-47 is suitable for use in Western blotting (Foda *et al.* 2001).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Paterson DJ *et al.* (1987) Antigens of activated rat T lymphocytes including a molecule of 50,000 Mr detected only on CD4 positive T blasts. Mol Immunol. 24 (12): 1281-90. 2. Fossum, S. *et al.* (1991) The MRC OX-47 antigen is a member of the immunoglobulin superfamily with an unusual transmembrane sequence. Eur J Immunol. 21 (3): 671-9. 3. Cassella, J.P. *et al.* (1996) Ontogeny of four blood-brain barrier markers: an immunocytochemical comparison of pial and cerebral cortical microvessels. J Anat. 189: 407-15. 4. Foda, H.D. *et al.* (2001) Ventilator-induced lung injury upregulates and activates gelatinases and EMMPRIN: attenuation by the synthetic matrix metalloproteinase inhibitor, Prinomastat (AG3340). Am J Respir Cell Mol Biol. 25 (6): 717-24. 5. Betsuyaku, T. *et al.* (2003) Increased basigin in bleomycin-induced lung injury. Am J Respir Cell Mol Biol. 28: 600-6. 6. Zhang, S. *et al.* (2008) Microfabricated silicon nitride membranes for hepatocyte sandwich culture. Biomaterials. 29: 3993-4002. 7. Du, Y. *et al.* (2008) Synthetic sandwich culture of 3D hepatocyte monolayer. Biomaterials. 29: 290-301. 8. Xia, L. *et al.* (2009) Laminar-flow immediate-overlay hepatocyte sandwich perfusion system for drug hepatotoxicity testing. Biomaterials. 30: 5927-36. 9. Stevenson, K.S. *et al*. (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. Stem Cells Dev. 18: 1389-98.

10. Nugraha, B. *et al.* (2011) Galactosylated cellulosic sponge for multi-well drug safety testing. Biomaterials. 32: 6982-94.
11. Nakao, Y. *et al.* (2011) Bile canaliculi formation by aligning rat primary hepatocytes in a microfluidic device. Biomicrofluidics. 5: 22212.
12. Zhu, L. *et al.* (2016) A vertical-flow bioreactor array compacts hepatocytes for enhanced polarity and functions. Lab Chip. 16 (20): 3898-908.

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. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA729F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)

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
'M384783:210513'

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