

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	0.09% Sodium Azide		
Stabilisers	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](#)

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 <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (1996) Ontogeny of four blood-brain barrier markers: an immunocytochemical comparison of pial and cerebral cortical microvessels. J Anat. 189 (Pt 2): 407-15. 4. Foda, H.D. <i>et al.</i> (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. Stevenson, K.S. <i>et al.</i> (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. Stem Cells Dev. 18: 1389-98. 6. Betsuyaku, T. <i>et al.</i> (2003) Increased basigin in bleomycin-induced lung injury. Am J Respir Cell Mol Biol. 28: 600-6. 7. Du, Y. <i>et al.</i> (2008) Synthetic sandwich culture of 3D hepatocyte monolayer. Biomaterials. 29: 290-301. 8. Nakao, Y. <i>et al.</i> (2011) Bile canaliculi formation by aligning rat primary hepatocytes in a microfluidic device. Biomicrofluidics. 5: 22212. 9. Nugraha, B. <i>et al.</i> (2011) Galactosylated cellulosic sponge for multi-well drug safety testing. Biomaterials. 32: 6982-94. 10. Xia, L. <i>et al.</i> (2009) Laminar-flow immediate-overlay hepatocyte sandwich perfusion system for drug hepatotoxicity testing. Biomaterials. 30: 5927-36. 11. Zhang, S. <i>et al.</i> (2008) Microfabricated silicon nitride membranes for hepatocyte sandwich culture. Biomaterials. 29: 3993-4002. 12. Cassella, J.P. <i>et al.</i> (1996) Ontogeny of four blood-brain barrier markers: an immunocytochemical comparison of pial and cerebral cortical microvessels. J Anat. 189: 407-15. 13. Zhu, L. <i>et al.</i> (2016) Vertical-flow Bioreactor Array Compacts Hepatocytes for Enhanced Polarity and Functions Lab Chip. Sep 6 [Epub ahead of print]
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. This product is photosensitive and should be protected from light.

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 #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
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Regulatory	For research purposes only
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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
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Printed on 25 May 2018