

## Datasheet: MCA729PE

<b>Description:</b>	MOUSE ANTI RAT CD147:RPE
<b>Specificity:</b>	CD147
<b>Other names:</b>	NEUROTHELIN
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-47
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS

## Product Details

**RRID** AB\_2259305

**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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat

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 R. Phycoerythrin (RPE) - lyophilized

**Reconstitution** Reconstitute with 1.0 ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

**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  
 5% Sucrose

**Immunogen** T blasts from a mixed lymphocyte reaction.

**External Database** **UniProt:**

**Links**

[P26453](#) [Related reagents](#)

**Entrez Gene:**

[25246](#) Bsg [Related reagents](#)

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**Fusion Partners**

Spleen cells from immunised BALB/c mice were fused with cells from the NS0/1 mouse myeloma cell line.

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**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](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

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**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 \( Pt 2\): 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. 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.](#)
6. Betsuyaku, T. *et al.* (2003) Increased basigin in bleomycin-induced lung injury. [Am J Respir Cell Mol Biol. 28: 600-6.](#)
7. Du, Y. *et al.* (2008) Synthetic sandwich culture of 3D hepatocyte monolayer. [Biomaterials. 29: 290-301.](#)
8. Nakao, Y. *et al.* (2011) Bile canaliculi formation by aligning rat primary hepatocytes in a microfluidic device. [Biomicrofluidics. 5: 22212.](#)
9. Nugraha, B. *et al.* (2011) Galactosylated cellulosic sponge for multi-well drug safety testing. [Biomaterials. 32: 6982-94.](#)
10. Xia, L. *et al.* (2009) Laminar-flow immediate-overlay hepatocyte sandwich perfusion system for drug hepatotoxicity testing. [Biomaterials. 30: 5927-36.](#)
11. Zhang, S. *et al.* (2008) Microfabricated silicon nitride membranes for hepatocyte sandwich culture. [Biomaterials. 29: 3993-4002.](#)
12. 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.](#)
13. Zhu, L. *et al.* (2016) A vertical-flow bioreactor array compacts hepatocytes for enhanced polarity and functions. [Lab Chip. 16 \(20\): 3898-908.](#)

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**Storage**

Prior to reconstitution store at +4°C.

After reconstitution store at +4°C.  
DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

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<b>Guarantee</b>	12 months from date of reconstitution.
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10075 available at: 10075: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA1209PE\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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