

# Datasheet: MCA54PE

## **BATCH NUMBER 1807**

Description:	MOUSE ANTI RAT CD43:RPE
Specificity:	CD43
Other names:	LEUKOSIALIN
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	W3/13
Isotype:	lgG1
Quantity:	100 TESTS

## **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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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 conjuga	ated to R. Phycoerythrin	ı (RPE) - lyophilized
Reconstitution	Reconstitute with 1	ml distilled water	
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepare supernatant	ed by affinity chromatog	raphy on Protein G t
Buffer Solution	Phosphate buffered	saline	
Preservative	0.09% Sodium Azid	e	
Stabilisers	1% Bovine Serur	m Albumin	

	5% Sucrose
Immunogen	Rat thymocyte membrane glycoproteins.
External Database Links	UniProt:

P13838 Related reagents

#### **Entrez Gene:**

24796 Spn Related reagents

#### **RRID**

AB 321709

#### **Fusion Partners**

Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.

## **Specificity**

**Mouse anti Rat CD43 antibody, clone W3/13** recognizes the rat CD43 cell surface antigen, also known as leukosialin, sialophorin or W3/13 antigen. CD43 is a 371 amino acid ~95 kDa heavily glycosylated single pass type 1 transmembrane glycoprotein (<u>Killeen et al. 1987</u>) expressed by all leucocytes with the exception of B lymphocytes. CD43, in mice acts as a T-cell counter-receptor for CD169 (Siglec-1) suggesting a role in cell-cell interactions (<u>van den Berg et al. 2001</u>)

Mouse anti Rat CD43 antibody, clone W3/13 is routinely tested in flow cytometry on rat splenocytes.

### **Flow Cytometry**

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

#### References

- 1. Brown, W.R.A. *et al.* (1981) Identification of a glycophorin-like molecule at the cell surface of rat thymocytes. Nature. 289: 456-460.
- 2. Barclay, A. N. (1981) The localization of populations of lymphocytes defined by monoclonal antibodies in rat lymphoid tissues. Immunology. 42: 593-600
- 3. Forbes, R. D. C. *et al.* (1983) Leukocyte subsets in first-set rat cardiac allograft rejection. A serial immunohistologic study using monoclonal antibodies <u>Transplantation</u>. 36: 681-686
- 4. Jung, S. *et al.* (1994) Therapeutic effect of transforming growth factor-beta 2 on actively induced EAN but not adoptive transfer EAN Immunology. 83: 545-551.
- 5. Bataller, R. *et al.* (2003) Prolonged infusion of angiotensin II into normal rats induces stellate cell activation and proinflammatory events in liver. <u>Am J Physiol Gastrointest Liver Physiol.</u> 285: G642-651
- 6. Rice, E.K. *et al.* (2003) Induction of MIF synthesis and secretion by tubular epithelial cells: a novel action of angiotensin II. Kidney Int. 63 (4): 1265-75.
- 7. Schwab, J.M. *et al.* (2005) Spinal cord injury induces early and persistent lesional P2X4 receptor expression. <u>J Neuroimmunol. 163: 185-9.</u>
- 8. Conrad, S. *et al.* (2005) Prolonged lesional expression of RhoA and RhoB following spinal cord injury. J Comp Neurol. 487: 166-75.
- 9. Zhang, Z. *et al.* (2008) FTY720 ameliorates experimental autoimmune neuritis by inhibition of lymphocyte and monocyte infiltration into peripheral nerves. Exp Neurol. 210:

### 681-90.

- 10. Yamanaka, Y. *et al.* (2011) Immunohistochemical analysis of subcutaneous tissue reactions to methacrylate resin-based root canal sealers. <u>Int Endod J. 44: 669-75.</u>
- 11. Dort, J. *et al.* (2012) Beneficial effects of cod protein on skeletal muscle repair following injury. <u>Appl Physiol Nutr Metab. 37 (3): 489-98.</u>
- 12. Duchesne, E. *et al.* (2013) Mast cells can regulate skeletal muscle cell proliferation by multiple mechanisms. Muscle Nerve. 48 (3): 403-14.
- 13. Xu, K. *et al.* (2016) Expression of aryl hydrocarbon receptor in rat brain lesions following traumatic brain injury. <u>Diagn Pathol. 11 (1): 72.</u>
- 14. Dort, J. *et al.* (2016) Shrimp Protein Hydrolysate Modulates the Timing of Proinflammatory Macrophages in Bupivacaine-Injured Skeletal Muscles in Rats. <u>Biomed Res Int. 2016</u>: 5214561.
- 15. Zhang, Z.M. *et al.* (2016) Lesional accumulation of CD8(+) cells in sciatic nerves of experimental autoimmune neuritis rats. Neurol Sci. 37 (2): 199-203.
- 16. Ornellas, F.M. *et al.* (2019) Mesenchymal Stromal Cells Induce Podocyte Protection in the Puromycin Injury Model. Sci Rep. 9 (1): 19604.
- 17. Grad, E. *et al.* (2019) Monocyte Modulation by Liposomal Alendronate Improves Cardiac Healing in a Rat Model of Myocardial Infarction Regenerative Engineering and Translational Medicine. 5 (3): 280-9.
- 18. Kami, K. *et al.* (2019) Role of 72-kDa Heat Shock Protein in Heat-stimulated Regeneration of Injured Muscle in Rat. <u>J Histochem Cytochem. 67 (11): 791-9.</u>
- 19. Cąkała-Jakimowicz, M. & Puzianowska-Kuznicka, M. (2022) Towards Understanding the Lymph Node Response to Skin Infection with Saprophytic *Staphylococcus epidermidis.*. <u>Biomedicines</u>. 10 (5): 1021.
- 20. Merlini, A. *et al.* (2022) Distinct roles of the meningeal layers in CNS autoimmunity. Nat Neurosci. 25 (7): 887-99.

### Storage

Prior to reconstitution store at +4°C. Following 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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA54PE">https://www.bio-rad-antibodies.com/SDS/MCA54PE</a> 20487
Regulatory	For research purposes only

## Related Products

## **Recommended Negative Controls**

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA1209PE)

North & South Tel: +1 800 265 7376 Worldwide Tel: +44 (0)1865 852 700 Europe Tel: +49 (0) 89 8090 95 21 Fax: +1 919 878 3751 Fax: +44 (0)1865 852 739 America

Fax: +49 (0) 89 8090 95 50 Email: antibody\_sales\_de@bio-rad.comd a Email: antibody\_sales\_us@bio-rad.com Email: antibody\_sales\_uk@bio-rad.com

То

batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M375585:210104'

#### Printed on 19 Jan 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint