

Datasheet: MCA90PET BATCH NUMBER 150015

MOUSE ANTI HUMAN CD90:RPE		
CD90		
THY1		
RPE		
Monoclonal Antibody		
F15-42-1		
lgG1		
25 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 <u>www.bio-rad-antibodies.com/protocols</u> .					
		Yes No	Not Determined	Suggested Dilution		
	Flow Cytometry	•		Neat		
	Where this product 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 a a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.					
Target Species	Human					
Species Cross Reactivity	Reacts with: Cynomolgus monkey N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.					
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - Iyophilised					
Reconstitution	Reconstitute with 0.25 ml distilled water					
Max Ex/Em	Fluorophore	Excitation Max (nn	n) Emission Max (nm)			
	RPE 488nm laser	496	578			
Preparation	Purified IgG prepared	by affinity chromate	ography on Protein G			

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide
Stabilisers	1% Bovine Serum Albumin
	5% Sucrose
Immunogen	Purified human brain Thy-1.
External Database	
Links	UniProt:
	P04216 Related reagents
	Entrez Gene:
	7070 THY1 Related reagents
RRID	AB 2240562
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Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	Mouse anti Human CD90 antibody, clone F15-42-1 recognizes the human CD90 cell surface antigen, a ~25 kDa glycoprotein homologous to rat Thy1. The antigen is expressed by a subset of CD34+ve cells in the bone marrow and by prothymocytes within the thymus. CD90 is also expressed extensively within the brain.
	Mouse anti Human CD90 antibody, clone F15-42-1 is routinely tested in flow cytometry on the MOLT4 cell line.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	1. McKenzie, J.L. & Fabre, J.W. (1981) Human thy-1: unusual localization and possible functional significance in lymphoid tissues. <u>J Immunol. 126 (3): 843-50.</u>
	2. Daar, A.S. & Fabre, J.W. (1981) Demonstration with monoclonal antibodies of an unusual mononuclear cell infiltrate and loss of normal epithelial membrane antigens in
	human breast carcinomas. Lancet. 2 (8244): 434-8.
	3. Paul, G. <i>et al.</i> (2012) The adult human brain harbors multipotent perivascular
	mesenchymal stem cells. <u>PLoS One. 7: e35577.</u>
	4. Fiegel, H.C. <i>et al.</i> (2004) Stem-like cells in human hepatoblastoma. <u>J Histochem</u>
	Cytochem. 52 (11): 1495-501.
	5. Hagood, J.S. <i>et al.</i> (2005) Loss of fibroblast Thy-1 expression correlates with lung
	fibrogenesis. <u>Am J Pathol. 167 (2): 365-79.</u>
	6. Diaz-Romero, J. <i>et al.</i> (2008) Immunophenotypic changes of human articular
	chondrocytes during monolayer culture reflect bona fide dedifferentiation rather than
	amplification of progenitor cells. J Cell Physiol. 214: 75-83.
	7. Cox, G. <i>et al.</i> (2011) The use of the reamer-irrigator-aspirator to harvest mesenchymal
	stem cells. J Bone Joint Surg Br. 93: 517-24.
	8. Cizeau, J. <i>et al.</i> (2011) Fusogenics: a recombinant immunotoxin-based screening platform to select internalizing tumor-specific antibody fragments. J Biomol Screen. 16:

<u>90-100.</u>

9. Gieseke, F. *et al.* (2010) Human multipotent mesenchymal stromal cells use galectin-1 to inhibit immune effector cells. <u>Blood. 116: 3770-9.</u>

10. Hauser, P.V. *et al.* (2010) Stem cells derived from human amniotic fluid contribute to acute kidney injury recovery. <u>Am J Pathol. 177: 2011-21.</u>

11. Holzwarth, C. *et al.* (2010) Low physiologic oxygen tensions reduce proliferation and differentiation of human multipotent mesenchymal stromal cells. <u>BMC Cell Biol. 11:11</u>

12. Karlsen, T.A. *et al.* (2010) Human primary articular chondrocytes, chondroblasts-like cells, and dedifferentiated chondrocytes: differences in gene, microRNA, and protein expression and phenotype. <u>Tissue Eng Part C Methods</u>. <u>17: 219-27</u>.

13. Manochantr, S. *et al.* (2010) Isolation, characterization and neural differentiation potential of amnion derived mesenchymal stem cells. J Med Assoc Thai. 93 Suppl 7: <u>S183-91.</u>

14. Meng, J. *et al* (2011) Contribution of human muscle-derived cells to skeletal muscle regeneration in dystrophic host mice. <u>PLoS One. 6: e17454.</u>

15. Pessina, A. *et al.* (2010) CD45+/CD133+ positive cells expanded from umbilical cord blood expressing PDX-1 and markers of pluripotency. <u>Cell Biol Int. 34: 783-90.</u>

16. Tome, M. *et al.* (2007) Calponin is expressed by subpopulations of connective tissue cells but not olfactory ensheathing cells in the neonatal olfactory mucosa. <u>BMC Neurosci.</u> <u>8: 74.</u>

17. Yin, S. *et al.* (2010) Chondrogenic transdifferentiation of human dermal fibroblasts stimulated with cartilage-derived morphogenetic protein 1. <u>Tissue Eng Part A. 16</u>: 1633-43.

18. Shafaei, H. *et al.* (2011) Effects of human placental serum on proliferation and morphology of human adipose tissue-derived stem cells. <u>Bone Marrow Transplant. 46:</u> 1464-71.

19. Escobar, C.H. & Chaparro, O. (2016) Xeno-Free Extraction, Culture, and Cryopreservation of Human Adipose-Derived Mesenchymal Stem Cells. <u>Stem Cells Transl</u> <u>Med. 5 (3): 358-65.</u>

20. Shinoda, K. *et al.* (2016) Thy1+IL-7+ lymphatic endothelial cells in iBALT provide a survival niche for memory T-helper cells in allergic airway inflammation. <u>Proc Natl Acad</u> <u>Sci U S A. May 2. pii: 201512600. [Epub ahead of print]</u>

21. Kamprom, W. *et al.* (2016) Endothelial Progenitor Cell Migration-Enhancing Factors in the Secretome of Placental-Derived Mesenchymal Stem Cells. <u>Stem Cells Int. 2016</u>: <u>2514326</u>.

Vaquero, J. *et al.* (2016) An approach to personalized cell therapy in chronic complete paraplegia: The Puerta de Hierro phase I/II clinical trial. <u>Cytotherapy. 18 (8): 1025-36.</u>
 Zhang, X. *et al.* (2017) Regeneration of hyaline-like cartilage in situ with SOX9 stimulation of bone marrow-derived mesenchymal stem cells. <u>PLoS One. 12 (6):</u>

<u>e0180138.</u>

24. GarikipatiV, N.S. *et al.* (2018) Isolation and characterization of mesenchymal stem cells from human fetus heart. <u>PLoS One. 13 (2): e0192244.</u>

25. Chaturvedi, C.P. *et al.* (2018) Altered Expression of Hematopoiesis Regulatory Molecules in Lipopolysaccharide-Induced Bone Marrow Mesenchymal Stem Cells of Patients with Aplastic Anemia. <u>Stem Cells Int. 2018: 6901761.</u>

26. Noda, S. *et al.* (2019) Effect of cell culture density on dental pulp-derived mesenchymal stem cells with reference to osteogenic differentiation. <u>Sci Rep. 9 (1): 5430.</u>

	 27. Sanjurjo-Rodriguez, C. <i>et al.</i> (2020) Gene Expression Signatures of Synovial Fluid Multipotent Stromal Cells in Advanced Knee Osteoarthritis and Following Knee Joint Distraction. Front Bioeng Biotechnol. 8: 579751. 28. Supokawej, A. <i>et al.</i> (2013) Cardiogenic and myogenic gene expression in mesenchymal stem cells after 5-azacytidine treatment. Turk J Haematol. 30 (2): 115-2 29. Paiboon, N. <i>et al.</i> (2019) Gestational Tissue-Derived Human Mesenchymal Stem Cells District Combinations of Bioactive Molecules to Suppress the Proliferation of Hur Hepatoblastoma and Colorectal Cancer Cells. Stem Cells Int. 2019: 9748795. 				
Storage	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted.				
Guarantee	12 months from date of despatch				
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA90PET 20487				
Regulatory	For research purposes only				

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South	Tel: +1 800 265 7376 World	dwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-rad.com		Email: antibody_sales_uk@bio-rac	l.com	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 'M375694:210104'

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