

Datasheet: MCA90PET

Description:	MOUSE ANTI HUMAN CD90:RPE
Specificity:	CD90
Other names:	THY1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	F15-42-1
Isotype:	IgG1
Quantity:	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 www.bio-rad-antibodies.com/protocols.

	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 as 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.		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by ion exchange chromatography		
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](#)

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. J Immunol. 126 (3): 843-50. 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. PLoS One. 7: e35577. 4. Fiegel, H.C. <i>et al.</i> (2004) Stem-like cells in human hepatoblastoma. J Histochem Cytochem. 52 (11): 1495-501. 5. Hagood, J.S. <i>et al.</i> (2005) Loss of fibroblast Thy-1 expression correlates with lung fibrogenesis. Am J Pathol. 167 (2): 365-79. 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: 90-100. 9. Gieseke, F. <i>et al.</i> (2010) Human multipotent mesenchymal stromal cells use galectin-1 to inhibit immune effector cells. Blood. 116: 3770-9. 10. Hauser, P.V. <i>et al.</i> (2010) Stem cells derived from human amniotic fluid contribute to acute kidney injury recovery. Am J Pathol. 177: 2011-21. 11. Holzwarth, C. <i>et al.</i> (2010) Low physiologic oxygen tensions reduce proliferation and differentiation of human multipotent mesenchymal stromal cells. BMC Cell Biol. 11:11 12. Karlsen, T.A. <i>et al.</i> (2010) Human primary articular chondrocytes, chondroblasts-like cells, and dedifferentiated chondrocytes: differences in gene, microRNA, and protein expression and phenotype. Tissue Eng Part C Methods. 17: 219-27. 13. Manochantr, S. <i>et al.</i> (2010) Isolation, characterization and neural differentiation potential of amnion derived mesenchymal stem cells. J Med Assoc Thai. 93 Suppl 7: S183-91. 14. Meng, J. <i>et al.</i> (2011) Contribution of human muscle-derived cells to skeletal muscle regeneration in dystrophic host mice. PLoS One. 6: e17454. 15. Pessina, A. <i>et al.</i> (2010) CD45+/CD133+ positive cells expanded from umbilical cord blood expressing PDX-1 and markers of pluripotency. Cell Biol Int. 34: 783-90. 16. Tome, M. <i>et al.</i> (2007) Calponin is expressed by subpopulations of connective tissue cells but not olfactory ensheathing cells in the neonatal olfactory mucosa. BMC Neurosci. 8: 74. 17. Yin, S. <i>et al.</i> (2010) Chondrogenic transdifferentiation of human dermal fibroblasts stimulated

- with cartilage-derived morphogenetic protein 1. [Tissue Eng Part A. 16: 1633-43.](#)
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19. Escobar, C.H. & Chaparro, O. (2016) Xeno-Free Extraction, Culture, and Cryopreservation of Human Adipose-Derived Mesenchymal Stem Cells. [Stem Cells Transl Med. 5 \(3\): 358-65.](#)
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Storage	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.
Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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