

Datasheet: MCA1399PE

BATCH NUMBER 150141

Description:	MOUSE ANTI HUMAN FIBROBLASTS/EPITHELIAL CELLS:RPE
Specificity:	FIBROBLASTS/EPITHELIAL CELLS
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	D7-FIB
Isotype:	IgG2a
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 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	Human		
Species Cross Reactivity	Does not react with:Rat, Mouse		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0ml 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 (NaN ₃)		

Stabilisers	1% Bovine Serum Albumin 5% Sucrose
Immunogen	Human foreskin fibroblasts.
RRID	AB_1055724
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2 myeloma cell line.
Specificity	<p>Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB recognizes a ~112kDa molecule expressed on the cell surface of human fibroblasts. The antigen is not expressed by peripheral blood cells, and is found at low levels on a minority of melanoma cell lines. Studies upon the antigen have shown it to be sensitive to SDS, but resistant to trypsin, tunicamycin and collagenase.</p> <p>In immunohistological studies Mouse anti Human Fibroblasts/Epithelial Cells antibody.</p> <p>Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB has also been found to bind to epithelium, myoepithelium, smooth muscle and some leucocytes.</p> <p>Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB is useful as a cell membrane marker to characterize chondrocyte differentiation giving a positive reaction with dedifferentiated human chondrocytes, and negative with differentiated chondrocytes (van Osch et al. 2001).</p> <p>Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB is routinely tested in flow cytometry on the KG1 cell line.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Fearn C & Dowdle EB (1992) The desmoplastic response: induction of collagen synthesis by melanoma cells <i>in vitro</i>. Int J Cancer. 50 (4): 621-7. 2. Kelynack, K.J. <i>et al.</i> (2000) Human renal fibroblast contraction of collagen I lattices is an integrin-mediated process. Nephrol Dial Transplant. 15 (11): 1766-72. 3. van Osch, G.J. <i>et al.</i> (2001) Monoclonal antibody 11-fibrau: a useful marker to characterize chondrocyte differentiation stage. Biochem Biophys Res Commun. 280 (3): 806-12. 4. Behl, B. <i>et al.</i> (2013) Biological effects of cobalt-chromium nanoparticles and ions on dural fibroblasts and dural epithelial cells. Biomaterials. 34 (14): 3547-58. 5. Morito, T. <i>et al.</i> (2008) Synovial fluid-derived mesenchymal stem cells increase after intra-articular ligament injury in humans. Rheumatology (Oxford). 47 (8): 1137-43. 6. Pountos, I. <i>et al.</i> (2011) NSAIDS inhibit in vitro MSC chondrogenesis but not osteogenesis: implications for mechanism of bone formation inhibition in man. J Cell Mol Med. 15: 525-34. 7. Telfer, J.F. and Brock, J.H. (2002) Expression of ferritin, transferrin receptor, and non-specific resistance associated macrophage proteins 1 and 2 (Nramp1 and Nramp2) in the human rheumatoid synovium. Ann Rheum Dis. 61: 741-4.

8. English, A. *et al.* (2007) A comparative assessment of cartilage and joint fat pad as a potential source of cells for autologous therapy development in knee osteoarthritis. [Rheumatology \(Oxford\). 46: 1676-83.](#)
9. Jones, E.A. *et al.* (2006) Optimization of a flow cytometry-based protocol for detection and phenotypic characterization of multipotent mesenchymal stromal cells from human bone marrow. [Cytometry B Clin Cytom. 70: 391-9.](#)
10. Nimura, A. *et al.* (2008) Increased proliferation of human synovial mesenchymal stem cells with autologous human serum: comparisons with bone marrow mesenchymal stem cells and with fetal bovine serum. [Arthritis Rheum. 58: 501-10.](#)
11. Miranda-Carús, M.E. *et al.* (2004) Rheumatoid arthritis synovial fluid fibroblasts express TRAIL-R2 (DR5) that is functionally active. [Arthritis Rheum. 50: 2786-93.](#)
12. Petrow, P.K. *et al.* (2002) Characterisation of the cell type-specificity of collagenase 3 mRNA expression in comparison with membrane type 1 matrix metalloproteinase and gelatinase A in the synovial membrane in rheumatoid arthritis. [Ann Rheum Dis. 61: 391-7.](#)
13. Sekiya, I. *et al.* (2012) Human mesenchymal stem cells in synovial fluid increase in the knee with degenerated cartilage and osteoarthritis. [J Orthop Res. 30: 943-9.](#)
14. Kanayama, M. *et al.* (2009) Alpha9 integrin and its ligands constitute critical joint microenvironments for development of autoimmune arthritis. [J Immunol. 182: 8015-25.](#)
15. Pap, T. *et al.* (2003) Osteoclast-independent bone resorption by fibroblast-like cells [Arthritis Res Ther. 5: R163-73.](#)
16. Shi, Y. *et al.* (2012) Adipose-derived stem cells combined with a demineralized cancellous bone substrate for bone regeneration. [Tissue Eng Part A. 18: 1313-21.](#)
17. Scutt, N. *et al.* (2008) Tissue specific characteristics of cells isolated from human and rat tendons and ligaments. [J Orthop Surg Res. 3: 32.](#)
18. Jones. E.A. *et al.* (2002) Isolation and characterization of bone marrow multipotential mesenchymal progenitor cells. [Arthritis. Rheum. 46: 3349-60.](#)
19. Schminke, B. *et al.* (2015) The pathology of bone tissue during peri-implantitis. [J Dent Res. 94 \(2\): 354-61.](#)
20. De Bari, C. *et al.* (2006) Mesenchymal multipotency of adult human periosteal cells demonstrated by single-cell lineage analysis. [Arthritis Rheum. 54 \(4\): 1209-21.](#)
21. Iyyanki, T. *et al.* (2015) Harvesting technique affects adipose-derived stem cell yield. [Aesthet Surg J. 35 \(4\): 467-76.](#)
22. Asano, T. *et al.* (2014) $\alpha 9\beta 1$ integrin acts as a critical intrinsic regulator of human rheumatoid arthritis. [Rheumatology \(Oxford\). 53 \(3\): 415-24.](#)
23. Papageorgiou, I. *et al.* (2014) Interaction of micron and nano-sized particles with cells of the dura mater. [J Biomed Mater Res B Appl Biomater. 102 \(7\): 1496-505.](#)
24. De Bari, C. *et al.* (2008) A biomarker-based mathematical model to predict bone-forming potency of human synovial and periosteal mesenchymal stem cells. [Arthritis Rheum. 58 \(1\): 240-50.](#)
25. Stolzing, A. *et al.* (2008) Age-related changes in human bone marrow-derived mesenchymal stem cells: consequences for cell therapies. [Mech Ageing Dev. 129 \(3\): 163-73.](#)
26. Martinez, C. *et al.* (2007) Human bone marrow mesenchymal stromal cells express the neural ganglioside GD2: a novel surface marker for the identification of MSCs. [Blood. 109 \(10\): 4245-8.](#)
27. Jayne, D.G. *et al.* (1999) A three-dimensional in-vitro model for the study of peritoneal tumour metastasis. [Clin Exp Metastasis. 17 \(6\): 515-23.](#)

28. Lu, G. *et al.* (2013) Transplantation-potential-related biological properties of decidual basalis mesenchymal stem cells from maternal human term placenta. [Cell Tissue Res. 352 \(2\): 301-12.](#)
29. Pandya, J.M. *et al.* (2016) CD4+ and CD8+ CD28(null) T Cells Are Cytotoxic to Autologous Muscle Cells in Patients With Polymyositis. [Arthritis Rheumatol. 68 \(8\): 2016-26.](#)
30. Manoussaka, M.S. *et al.* (2005) Flow cytometric characterisation of cells of differing densities isolated from human term placentae and enrichment of villous trophoblast cells. [Placenta. 26 \(4\): 308-18.](#)
31. Todisco, E. *et al.* (2002) CD40 ligand-stimulated B cell precursor leukemic cells elicit interferon-gamma production by autologous bone marrow T cells in childhood acute lymphoblastic leukemia. [Leukemia. 16 \(10\): 2046-54.](#)
32. Grognez, A. *et al.* (2016) Human Fetal Progenitor Tenocytes for Regenerative Medicine. [Cell Transplant. 25 \(3\): 463-79.](#)
33. Broeren, M.G.A. (2019) A three-dimensional model to study human synovial pathology [ALTEX. 36 \(1\): 18-28.](#)

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.

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/MCA1399PE>
20487

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:RPE \(MCA929PE\)](#)

Recommended Useful Reagents

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

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

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