

Datasheet: MCA1399G BATCH NUMBER 158943

Description:	MOUSE ANTI HUMAN FIBROBLASTS/EPITHELIAL CELLS	
Specificity:	FIBROBLASTS/EPITHELIAL CELLS	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	D7-FIB	
Isotype:	lgG2a	
Quantity:	0.2 mg	

Product Details

Applications	This product has been re	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	communications from the originators. Please refer to references indicated for further						
	information. For general	protocol r	ecommer	ndations, please visit <u>w</u>	ww.bio-			
	rad-antibodies.com/proto	rad-antibodies.com/protocols.						
		Yes	No	Not Determined	Suggested Dilution			
	Flow Cytometry	-			1/50 - 1/200			
	Immunohistology - Frozen (1)	-			1/100			
	Immunohistology - Paraffin		•					
	ELISA			-				
	Immunoprecipitation	-						
	Western Blotting			•				
	Where this antibody has not been tested for use in a particular technique this does not							
	necessarily exclude its us	necessarily exclude its use in such procedures. Suggested working dilutions are given as						
	a guide only. It is recomn	a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.						
	system using appropriate							
	(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of							
	acetone fixation for frozen sections.							
Target Species	Human							
Species Cross Reactivity	Does not react with:Rat, Mouse							
Product Form	Purified IgG - liquid							
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant							

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human foreskin fibroblasts.
RRID	AB_2180567
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2 myeloma cell line.
Specificity	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. The epitope recognized by clone D7-FIB is sensitive to SDS, but resistant to trypsin, tunicamycin and collagenase.
	Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB also binds to epithelium, myoepthelium, smooth muscle and some leucocytes.
	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 <i>et al.</i> 2001).
	Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB is routinely tested in flow cytometry on the KG1 cell line.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	 Fearns 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. 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. 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. 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. 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. 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. <u>J Cell Mol</u> <u>Med. 15: 525-34.</u>

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. <u>Ann Rheum Dis. 61: 741-4.</u>

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. <u>Rheumatology (Oxford). 46: 1676-83.</u>

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. <u>Cytometry B Clin Cytom. 70: 391-9.</u>

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. <u>Arthritis Rheum. 58: 501-10.</u>

11. Miranda-Carús, M.E. *et al.* (2004) Rheumatoid arthritis synovial fluid fibroblasts express TRAIL-R2 (DR5) that is functionally active. <u>Arthritis Rheum. 50: 2786-93.</u>

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. <u>Ann Rheum Dis. 61: 391-7.</u>
 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. <u>J Immunol. 182: 8015-25.</u>
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. <u>J Orthop Surg Res. 3: 32.</u>

18. Jones. E.A. *et al.* (2002) Isolation and characterization of bone marrow multipotential mesenchymal progenitor cells. <u>Arthritis. Rheum. 46: 3349-60.</u>

19. Schminke, B. *et al.* (2015) The pathology of bone tissue during peri-implantitis. <u>J Dent</u> 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. <u>Arthritis Rheum. 54 (4): 1209-21.</u>

21. lyyanki, T. *et al.* (2015) Harvesting technique affects adipose-derived stem cell yield. <u>Aesthet Surg J. 35 (4): 467-76.</u>

22. Asano, T. *et al.* (2014) α 9 β 1 integrin acts as a critical intrinsic regulator of human rheumatoid arthritis. <u>Rheumatology (Oxford). 53 (3): 415-24.</u>

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. <u>Arthritis</u> <u>Rheum. 58 (1): 240-50.</u>

25. Stolzing, A. *et al.* (2008) Age-related changes in human bone marrow-derived mesenchymal stem cells: consequences for cell therapies. <u>Mech Ageing Dev. 129 (3):</u> 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.
	<u>109 (10): 4245-8.</u>
	27. Jayne, D.G. et al. (1999) A three-dimensional in-vitro model for the study of peritoneal
	tumour metastasis. <u>Clin Exp Metastasis. 17 (6): 515-23.</u>
	28. Lu, G. et al. (2013) Transplantation-potential-related biological properties of decidua
	basalis mesenchymal stem cells from maternal human term placenta. <u>Cell Tissue Res.</u>
	<u>352 (2): 301-12.</u>
	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):
	<u>2016-26.</u>
	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.
	<u>Placenta. 26 (4): 308-18.</u>
	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. <u>Leukemia. 16 (10): 2046-54.</u>
	32. Grognuz, A. et al. (2016) Human Fetal Progenitor Tenocytes for Regenerative
	Medicine. <u>Cell Transplant. 25 (3): 463-79.</u>
	33. Broeren, M.G.A. (2019) A three-dimensional model to study human synovial pathology
	<u>ALTEX. 36 (1): 18-28.</u>
Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at
	-20°C on receipt. When thawed, aliguot the sample as needed. Keep aliguots at 2-8°C for
	short term use (up to 4 weeks) and store the remaining aliquots at -20°C.
	Avoid repeated freezing and thawing as this may denature the antibody. Storage in
	frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety	Material Safety Datasheet documentation #10040 available at:
Information	https://www.bio-rad-antibodies.com/SDS/MCA1399G
	10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12)	<u>RPE</u>			
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>				
Goat Anti Mouse IgG (STAR76)	<u>RPE</u>			
Goat Anti Mouse IgG (STAR70)	<u>FITC</u>			
Rabbit Anti Mouse IgG (STAR13)	<u>HRP</u>			
Goat Anti Mouse IgG (Fc) (STAR120)	<u>FITC</u> , <u>HRP</u>			
Rabbit Anti Mouse IgG (STAR9)	<u>FITC</u>			

Goat Anti Mouse IgG (STAR77...)

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

North & South	Tel: +1 800 265 7376	Worldwide	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-rad	.com	Email: antibody_sales_de@bio-rad.com

<u>HRP</u>

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M390833:211005'

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