

Datasheet: MCA1399GT

Description:	MOUSE ANTI HUMAN FIBROBLASTS/EPITHELIAL CELLS
Specificity:	FIBROBLASTS/EPITHELIAL CELLS
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	D7-FIB
Isotype:	IgG2a
Quantity:	25 µg

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	▪			1/50 - 1/200
Immunohistology - Frozen (1)	▪			1/100
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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.

(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 G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human foreskin fibroblasts.
RRID	AB_1102566
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. The epitope recognized by clone D7-FIB is sensitive to SDS, but resistant to trypsin, tunicamycin and collagenase.</p> <p>Mouse anti Human Fibroblasts/Epithelial Cells antibody, clone D7-FIB also binds 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 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
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. Jayne, D.G. <i>et al.</i> (1999) A three-dimensional in-vitro model for the study of peritoneal tumour metastasis. Clin Exp Metastasis. 17 (6): 515-23. 3. 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. 4. Todisco, E. <i>et al.</i> (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. 5. Jones. E.A. <i>et al.</i> (2002) Isolation and characterization of bone marrow multipotential mesenchymal progenitor cells. Arthritis. Rheum. 46: 3349-60. 6. 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.](#)
7. 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.](#)
8. Pap, T. *et al.* (2003) Osteoclast-independent bone resorption by fibroblast-like cells [Arthritis Res Ther. 5: R163-73.](#)
9. 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.](#)
10. 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.](#)
11. 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.](#)
12. 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.](#)
13. 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.](#)
14. 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.](#)
15. Morito, T. *et al.* (2008) Synovial fluid-derived mesenchymal stem cells increase after intra-articular ligament injury in humans. [Rheumatology \(Oxford\). 47 \(8\): 1137-43.](#)
16. 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.](#)
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. 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.](#)
19. Kanayama, M. *et al.* (2009) Alpha9 integrin and its ligands constitute critical joint microenvironments for development of autoimmune arthritis. [J Immunol. 182: 8015-25.](#)
20. Pountos, I. *et al.* (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.](#)
21. 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.](#)
22. Behl, B. *et al.* (2013) Biological effects of cobalt-chromium nanoparticles and ions on dural fibroblasts and dural epithelial cells. [Biomaterials. 34 \(14\): 3547-58.](#)
23. 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.](#)
24. 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.](#)
25. Iyyanki, T. *et al.* (2015) Harvesting technique affects adipose-derived stem cell yield.

[Aesthet Surg J. 35 \(4\): 467-76.](#)

26. Schminke, B. *et al.* (2015) The pathology of bone tissue during peri-implantitis. [J Dent Res. 94 \(2\): 354-61.](#)

27. Grognez, A. *et al.* (2016) Human Fetal Progenitor Tenocytes for Regenerative Medicine. [Cell Transplant. 25 \(3\): 463-79.](#)

28. Broeren, M.G.A. (2019) A three-dimensional model to study human synovial pathology [ALTEX. 36 \(1\): 18-28.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots 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 Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1399GT10040>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

North & South America Tel: +1 800 265 7376

Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

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](https://www.bio-rad-antibodies.com/datasheets)

'M409504:221019'

Printed on 18 Jan 2024

