OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

SM1214P Monoclonal Antibody to Fibroblasts / Epithelial Cells - Purified

Alternate names:	Fibroblast Marker, Fibroblasten
Quantity:	0.2 mg
Concentration:	1.0 mg/ml
Background:	A fibroblast is a connective-tissue cell of mesenchymal (somewhat undifferentiated) origin that secretes proteins from which the extracellular fibrillar matrix of connective tissue forms. Epithelial cells are cells that cover the surface of the body and line its cavities.
Host / Isotype:	Mouse / IgG2a
Recommended Isotype Controls:	AM03096PU-N
Clone:	D7-FIB
Immunogen:	Human foreskin Fibroblasts. Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2 myeloma cell line.
Format:	**State:** Liquid purified IgG fraction from Tissue Culture Supernatant **Purification:** Affinity Chromatography on Protein G **Buffer System:** PBS containing 0.09% Sodium Azide as preservative
Applications:	**Flow Cytometry:** Use 10 µl of a 1/50-1/200 diluted antibody to label 10^6 cells in 100 µl. This product is routinely tested on the KG1 cell line. **Immunohistochemistry on Frozen Tissues or Cells:** 1/100. This antibody is reported to be sensitive to formaldehyde fixation and tissue prossesing. Use ice-cold methanol for 5 min or acetone as fixative. ***Does not work on Paraffin Sections.*** **Immunoprecipitation.** Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	SM1214P recognizes a 112 kD molecule expressed on the cell surface of human fibroblasts and epithelial cells. In peripheral blood the antibody stains myeloid cells and a very small number of lymphocytes. Studies upon the antigen have shown it to be sensitive to SDS but resistant to trypsin, tunicamycin and collagenase. In immunohistochemical studies the antibody has also been found to bind to epithelium, myoepithelium, smooth muscle cells and some leucocytes. D7-FIB has been shown to be 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). **Negative Species:** Mouse, Rat.
Species Reactivity:	**Tested:** Human.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

1. Nazareth MR, Broderick L, Simpson-Abelson MR, Kelleher RJ, Yokota SJ, Bankert RB. Characterization of human lung tumor-associated fibroblasts and their ability to modulate the activation of tumor-associated T cells. J Immunol. 2007 May 1;178(9):5552-62. PubMed PMID: 17442937.

General Readings:

1. Fearns C, Dowdle EB. The desmoplastic response: induction of collagen synthesis by melanoma cells in vitro. Int J Cancer. 1992 Feb 20;50(4):621-7. PubMed PMID: 1537627.
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5. Morito T, Muneta T, Hara K, Ju YJ, Mochizuki T, Makino H, et al. Synovial fluid-derived mesenchymal stem cells increase after intra-articular ligament injury in humans. Rheumatology (Oxford). 2008 Aug;47(8):1137-43. doi: 10.1093/rheumatology/ken114. Epub 2008 Apr 5. PubMed PMID: 18390894.
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11. Miranda-Carús ME, Balsa A, Benito-Miguel M, De Ayala CP, Martín-Mola E.

Rheumatoid arthritis synovial fluid fibroblasts express TRAIL-R2 (DR5) that is functionally active. Arthritis Rheum. 2004 Sep;50(9):2786-93. PubMed PMID: 15457446.
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Pictures:

Flow Cytometry: Staining of KG1 cells with Mouse anti Human fibroblast antibody.