

Other species and cell types compatible with PromoCell media

Fibroblast Growth Media (+ modifications)
Chondrocyte Growth Medium (+ modifications)
Hematopoietic Progenitor Expansion Medium (+ modifications)
Osteoblast Growth Medium (+ modifications)
Osteoblast Mineralization Medium (+ modifications)
Preadipocyte/Adipocyte Media (+ modifications)
Pericyte Growth Medium (+ modifications)
Mesenchymal Stem Cell Media (+ modifications)



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Fibroblast Growth Medium (+ modifications): C-23010

Cell type used	Reference
Primary human myofibroblast-like cells, differentiated from CD133 ⁺ cord blood cells	Sodian et al.; Ann Thorac Surg. 2010 Mar; 89(3): 819–828
Primary porcine left ventricular myocardial fibroblasts	Mukherjee et al.; Circulation. 2010 Jul 6; 122(1): 20–32
	Eckhouse et al.; J Thorac Cardiovasc Surg. 2013 Jan; 145(1): 267–275
Primary sheep cardiac fibroblasts (from left ventricular myocardium)	Dixon et al.; Circulation. 2011 Sep 13; 124(11 Suppl): S35–45
Primary feline corneal fibroblasts (domestic short hair cat)	Huxlin et al.; PLoS One. 2013 Aug 5; 8(8): e70785
	Jeon et al.; Sci Rep. 2018 Aug 28; 8(1): 12945
	Jeon et al.; Invest Ophthalmol Vis Sci. 2022 Apr 1; 63(4): 2
Primary rat dermal fibroblasts	Oki et al.; Monoclon Antib Immunodiagn Immunother. 2015 Dec; 34(6): 396–403
Primary murine fibroblasts from descending thoracic aorta	Jones et al.; J Thorac Cardiovasc Surg. 2010 Sep; 140(3): 653–659
Primary murine cardiac fibroblasts	Michel et al.; JCI Insight. 2020 Nov 19; 5(22): e139910
Hs27 (human foreskin fibroblast cell line; ATCC CRL-1634)	Fearnley et al.; Elife. 2019 Mar 29; 8: e44597
GM03813 (human fibroblast cell line from a donor with SMA type II)	Pao et al.; Mol Ther. 2014 Apr; 22(4): 854–861
NIH3T3 (murine fibroblast cell line)	Okumura et al.; Sci Rep. 2017 Sep 11; 7(1): 11208
Human TERT fibroblasts	Lorat et al.; Int J Mol Sci. 2021 Jul 16; 22(14): 7638

Fibroblast Growth Medium 2 (+ modifications): C-23020

Cell type used	Reference
Primary rhesus monkey fibroblast from skin	Scholl et al.; Parasit Vectors. 2016 Jul 8; 9(1): 394
Cancer-associated human fibroblasts derived from oral squamous cell carcinoma	Pape et al.; Br J Cancer. 2020 Sep; 123(7): 1178–1190
	Sekiguchi et al.; Cancers. 2023 Aug 28; 15(17): 4303
Primary dermal fibroblasts from rat	Shaw et al.; PLoS Biol. 2017 Dec 18; 15(12): e2004086
Primary dermal fibroblasts from dog	Shaw et al.; PLoS Biol. 2017 Dec 18; 15(12): e2004086

Cell type used	Reference
Primary murine fibroblasts	Akerman et al.; J Am Heart Assoc. 2019 Jan 8; 8(1): e010332
	Akerman et al.; J Am Heart Assoc. 2021 Aug 17; 10(16): e019862
	Moore et al.; J Cardiovasc Dev Dis. 2022 Feb 17; 9(2): 62
MRC-5 (human diploid fetal lung fibroblast cell line; ATCC CCL-171)	Latorre et al.; BMC Cell Biol. 2017 Oct 17; 18(1): 31
WI-38 (human diploid lung fibroblast cell line; ATCC CCL-75)	Huang et al.; Hum Mol Genet. 2023 Jun 5; 32(12): 2016–2031

Fibroblast Growth Medium 3 (+ modifications): C-23025

Cell type used	Reference
iPSC-derived human cardiac fibroblasts	Soussi et al.; Biol Direct. 2023 Jul 27; 18(1): 41
	Maione et al.; Sci Rep. 2023 Sep 27; 13(1): 16179
	Windt et al.; Biochem Biophys Res Commun. 2023 Nov 12; 681: 200–211
	Kraszewska et al.; Mol Ther. 2024 Jan 3; 32(1): 84–102
	Cumberland et al.; F1000 Res. 2024 Feb 12; 12: 1224
	Lock et al.; Cell Rep. 2024 Jun 25; 43(6): 114302
	Arslan et al.; Curr Protoc. 2024 Jul; 4(7): e1097
Primary cardiac fibroblasts from rat	Martin et al.; Sci Rep. 2019 Dec 6; 9(1): 18545
Primary murine cardiac fibroblasts	Chavkin et al.; J Am Heart Assoc. 2021 Jul 6; 10(13): e019904

Chondrocyte Growth Medium (+ modifications): C-27101

Cell type used	Reference
Primary human costal chondrocytes from patients with pectus carinatum and pectus excavatum	Asmar et al.; Exp Mol Pathol. 2019 Feb; 106: 27–33

Hematopoietic Progenitor Expansion Medium XF (+ modifications): C-28021

Cell type used	Reference
Primary murine bone marrow cells	Hashimoto et al.; Am J Physiol Lung Cell Mol Physiol. 2020 Feb 1; 318(2): L386-L401

Osteoblast Growth Medium (+ modifications): C-27001

Cell type used	Reference
Human fetal osteoblast cell line	Niu et al.; Cell Prolif. 2015 Jun; 48(3): 348-355
	Stolzoff and Webster; J Biomed Mater Res A. 2016 Feb; 104(2): 476-482
	Stolzoff et al.; Int J Nanomedicine. 2017 Feb 9; 12: 1161-1169
	Lobo et al.; Int J Nanomedicine. 2018 Nov 22; 13: 7891-7903
	Rios-Pimentel et al.; Int J Nanomedicine. 2019 May 6; 14: 3265-3272
	Gao et al.; Int J Nanomedicine. 2020 Jan 28; 15: 513-519
Primary cells isolated from antler growth region of fallow buck (STRO-1 ⁺ cells)	Rolf et al.; PLoS One. 2008 Apr 30; 3(4): e2064
Saos-2 (human osteosarcoma cell line)	Stougaard et al.; BMC Rheumatol. 2018 Nov 19; 2:33
	Bergolt et al.; Int J Mol Sci. 2021 Dec 28; 23(1): 323
Human calvarial osteoblast cell line	Xia et al.; Mol Med Rep. 2017 Jul; 16(1): 361-366
MC3T3-E1 (murine preosteoblast cell line)	Pajovich and Banerjee; J Funct Biomater. 2017 Sep 20; 8(3): 41

Osteoblast Mineralization Medium (+ modifications): C-27020

Cell type used	Reference
Mesenchymal cells isolated from the calvariae of neonatal mice	Deloch et al.; Int J Mol Sci. 2018 Oct 16; 19(10): 3197
	Deloch et al.; Front Immunol. 2018 Sep 18; 9: 1834
Primary murine vascular smooth muscle cells	Wortmann et al.; Mol Med. 2020 Sep 15; 26(1): 87

Cell type used	Reference
MC3T3-E1 (murine preosteoblast cell line)	Pajovich and Banerjee; J Funct Biomater. 2017 Sep 20; 8(3): 41
SK-ES-1 (human osteosarcoma cell line)	Heckt et al.; Bone. 2016 Nov; 92: 85–93
Saos-2 (human osteosarcoma cell line)	Baldauf et al.; PLoS One. 2015 Sep 11; 10(9): e0137745
	Heckt et al.; Bone. 2016 Nov; 92: 85–93
	Tucker et al.; Int J Mol Sci. 2018 Mar 7; 19(3): 763
	Stougaard et al.; BMC Rheumatol. 2018 Nov 19; 2: 33
	Mancuso et al.; Mater Sci Eng C Mater Biol Appl. 2021 Jul; 126: 112192
	Bergolt et al.; Int J Mol Sci. 2021 Dec 28; 23(1): 323
U2-OS (human osteosarcoma cell line)	Baldauf et al.; PLoS One. 2015 Sep 11; 10(9): e0137745
UMR-106 (rat osteosarcoma cell line; ATCC CRL-1661)	Toepfer et al.; Am J Physiol Regul Integr Comp Physiol. 2021 Jul 1; 321(1): R29-R40

Preadipocyte/Adipocyte Media (+ modifications): C-27438, C-27437, C-27410

Cell type used	Reference
Primary human adipose stem cells	Laforenza et al.; PLoS one. 2013; 8(1): e54474
	Lee et al.; PLoS One. 2014 Nov 3; 9(11): e111767
	Kober et al.; Biomed Res Int. 2015; 2015: 170427
	Xu et al.; Ann Transl Med. 2020 Dec; 8(24): 1652
Primary bone-marrow MSC from rat	Ichinohe et al.; Stem Cell Res Ther. 2021 May 29; 12(1): 312
Primary murine preadipocytes isolated from inguinal fat pads	Abdelkarim et al.; J Biol Chem. 2010 Nov 19; 285(47): 36759–36767
White adipose tissue from mice	Wouters et al.; PLoS One; 2012 Mar; 7(3): e32440
Xu et al.; Adipocyte. 2013 Jan 1; 2(1): 33–40	Xu et al.; Adipocyte. 2013 Jan 1; 2(1): 33–40

Pericyte Growth Medium 2 (+ modifications): C-28041

Cell type used	Reference
Primary porcine vascular wall MSC	Bernardini et al.; Int J Mol Sci. 2020 Jul 24; 21(15): 5267

Cell type used	Reference
Primary murine cardiac pericytes	Cornuault et al.; J Am Heart Assoc. 2023 Jul 4; 12(13): e029279
Primary murine brain pericytes	Lee et al.; EMBO J. 2022 May 2; 41(9): e109890

Mesenchymal Stem Cell Media (+ modifications): C-28009, C-28019, C-28012, C-28013, C-28015, C28016

Cell type used	Reference
Human primary preadipocytes [MSC Growth Medium 2]	Cai et al.; Cell Res. 2020 Jul; 30(7): 574–589
Human adult skin fibroblasts [MSC Growth Medium 2]	Liuyang et al.; Cell Stem Cell. 2023 Apr 6; 30(4): 450–459
Multipotent postnatal stem/progenitor cells from human alveolar bone proper tissue of the oral cavity [MSC Chondrogenic Differentiation Medium]	El-Sayed et al.; J Craniomaxillofac Surg. 2012 Dec; 40(8): 735–742
Human gingival margin-derived stem/progenitor cells [MSC Chondrogenic Differentiation Medium; MSC Osteogenic Differentiation Medium]	El-Sayed et al.; Int J Oral Sci. 2015 Jun 26; 7(2): 80–88
Primary human dental pulp stem cells [MSC Chondrogenic Differentiation Medium; MSC Neurogenic Differentiation Medium; MSC Osteogenic Differentiation Medium]	Lee et al.; J Korean Assoc Oral Maxillofac Surg. 2014 Aug; 40(4): 173–180
	Seonwoo et al.; Nanomaterials. 2018 Jul 21; 8(7): 554
	Noda et al.; Sci Rep. 2019 Apr 1; 9(1): 5430
	Okajcekova et al.; Int J Mol Sci. 2020 Mar 26; 21(7): 2280
Human amniotic membrane-derived fibroblasts [MSC Neurogenic Differentiation Medium]	Orikasa et al.; Sci Rep. 2022 Jan 13; 12(1): 682
Human amniotic membrane-derived fibroblasts [MSC Neurogenic Differentiation Medium]	Higa et al.; Invest Ophthalmol Vis Sci. 2019 Sep 3; 60(12): 3718–3726
Primary murine bone marrow derived stromal cells [MSC Chondrogenic Differentiation Medium]	Wang et al.; Exp Cell Res. 2013 Mar 10; 319(5): 623–632
Primary murine bone marrow-derived MSC [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium]	Herz et al.; Brain Behav Immun. 2018 May; 70: 118–130
Primary murine adipose-derived MSC [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium]	Marin-Bañasco et al.; Br. J. Pharmacol. 2017 Feb; 174(3): 238–253
	Kankanam Gamage et al.; Biomolecules. 2022 Jul 21; 12(7): 1008
UE7T-13 (immortalized human bone marrow-derived MSC) [MSC Osteogenic Differentiation Medium]	Tsujimura et al.; Int J Mol Sci. 2019 Nov 16; 20(22): 5759

Cell type used	Reference
Primary murine manibular mesenchymal cells from embryos [MSC Neurogenic Differentiation Medium]	Shao et al.; J Mol Cell Biol. 2015 Oct; 7(5): 441-454
Primary murine fibro-adipogenic progenitors [MSC Chondrogenic Differentiation Medium]	Fitzgerald et al.; Commun Biol. 2023 Jan 27; 6(1): 111
Primary rat bone marrow MSC [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium; MSC Adipogenic Differentiation Medium 2]	Abiko et al.; Stem Cells Dev. 2018 Aug 1; 27(15): 1053-1061
	Ichinohe et al.; Stem Cell Res Ther. 2021 May 29; 12(1): 312
	Zhang et al.; Front Cell Dev Biol. 2021 Oct 26; 9: 768316
	Maeda et al.; Sci Rep. 2021 Nov 9; 11(1): 21907
	Liu et al.; Front Mol Biosci. 2022 Feb 11; 8: 782054
	Wu et al.; Kaohsiung J Med Sci. 2022 Jul; 38(7): 675-685
Primary rat cranial bone-derived MSC [MSC Osteogenic Differentiation Medium]	Abiko et al.; Stem Cells Dev. 2018 Aug 1; 27(15): 1053-1061
	Maeda et al.; Sci Rep. 2021 Nov 9; 11(1): 21907
Primary rat adipose derived MSC [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium; MSC Adipogenic Differentiation Medium 2]	Haertinger et al.; Cells. 2020 Jan 9; 9(1): 163
	Chen et al.; Cell Transplant. 2022 Jan-Dec; 31: 9636897221089629
	Tanoue et al.; Cell Transplant. 2023 Jan-Dec; 32: 9636897231207177
	El-Husseiny et al.; Int J Mol Sci. 2023 Apr 19; 24(8): 7513
Primary rat olfactory mucosa MSC [MSC Neurogenic Differentiation Medium]	Alvites et al.; Int J Cell Biol. 2020 Jan 29; 2020: 2938258
Primary rabbit bone marrow derived MSC [MSC Chondrogenic Differentiation Medium]	Tanaka et al.; Am J Transl Res. 2016 May 15; 8(5): 2222-2233
Primary rabbit endothelial progenitor cells [MSC Neurogenic Differentiation Medium]	Vašíček et al.; Genes. 2021 Mar 4; 12(3): 366
Primary sheep bone marrow-derived MSC [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium; MSC Adipogenic Differentiation Medium 2]	Gromolak et al.; Int J Mol Sci. 2020 Dec; 21(24): 9726
Primary chicken MSC [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium]	Svoradová et al.; Poult. Sci. 2023 Aug; 102(8): 102807
Multipotent postnatal stem/progenitor cells from the gingival margin of miniature-pigs [MSC Chondrogenic Differentiation Medium; MSC Osteogenic Differentiation Medium]	El-Sayed et al.; J Clin Periodontol. 2012 Sep; 39(9): 861-870
Primary pig adipose-derived stem cells [MSC Chondrogenic Differentiation Medium; MSC Osteogenic Differentiation Medium]	Jeong et al.; Stem Cell Res Ther. 2016 Aug 17; 7(1): 117

Cell type used	Reference
Human immortalized MSC [MSC Osteogenic Differentiation Medium]	Narai et al.; Heliyon. 2020 Oct 31; 6(10): e05398
Immortalized human adipose tissue-derived MSC [MSC Chondrogenic Differentiation Medium]	Choi et al.; Stem Cell Res Ther. 2023 Oct 4; 14(1): 283
ASC52telo (hTERT-immortalized human adipose-derived MSC line) [MSC Growth Medium 2]	Jang et al.; Adv Healthc Mater. 2024 Dec; 13(31): e2402391
MIO-M1 Müller cells (human immortalized Müller glia cell line) [MSC Neurogenic Differentiation Medium]	Anderson et al.; Nat Commun. 2024 Feb 6; 15(1): 1124
HATMSC2 (immortalized human adipose tissue-derived MSC line) [MSC Osteogenic Differentiation Medium]	Gelli et al.; ACS Biomater Sci Eng. 2023 Dec 11; 9(12): 6632–6643
C3H/10T1/2 (murine cell line isolated from a C3H mouse embryo) [MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium]	Takayama et al.; Sci Rep. 2017 Dec 5; 7(1): 16953
Immortalized renal Epo-producing cells from mice [MSC Growth Medium 2; MSC Adipogenic Differentiation Medium; MSC Osteogenic Differentiation Medium; MSC Chondrogenic Differentiation Medium; MSC Neurogenic Differentiation Medium]	Bapst et al.; J Cell Physiol. 2022 May; 237(5): 2420–2433
AGMK1-9T7 (spontaneously immortalized cell line from monkey kidney cells) [MSC Adipogenic Differentiation Medium 2; MSC Osteogenic Differentiation Medium]	Lewis Jr. et al.; PLoS One. 2023 Dec 7; 18(12): e0293406

Notes: Please refer to the relevant publication for exact modifications.

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