

Materials List for:

Isolation and Cellular Phenotyping of Mesenchymal Stem Cells Derived from Synovial Fluid and Bone Marrow of Minipigs

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Materials

Name	Company	Catalog Number	Comments
Advanced Dulbecco's modified Eagle medium (ADMEM)	Gibco	12491-023	MSC culture medium
Dulbecco's phosphate-buffered saline (DPBS)	Gibco	14190-144	Cell washing medium, free of Ca ²⁺ /Mg ²⁺
Fetal bovine serum (FBS)	Gibco	16000-044	Component of MSCs medium
Glutamax	Gibco	35050-061	Component of MSCs medium
Penicillin/streptomycin	Gibco	10378-016	Component of MSCs medium
Basic fibroblast growth factor (bFGF)	Sigma	F0291	Component of MSCs medium
Bovine serum albumin (BSA)	Sigma	A6003	Component of MSCs medium
Trypsin-EDTA	Gibco	25200-072	Cell dissociation reagent
β-mercaptoethanol	Sigma	M7522	Component of MSCs medium
Isotype antibody	BD Pharmingen	BD 550616	Isotype Control
CD29 antibody	BD Pharmingen	BD 552369	Integrin beta-1 MSCs marker
CD44 antibody	BD Pharmingen	BD 553133	Cell surface glycoprotein MSCs marker
CD45 antibody	BD Pharmingen	BD 340664	Hematopoietic stem cells marker
CD34 antibody	BD Pharmingen	BD 555821	Hematopoietic stem cells marker
CD90 antibody	BD Pharmingen	BD 555595	Thy-1 membrane glycoprotein MSCs marker
MHC Class II antibody	Santa Cruz	SC-32247	Antigen presenting cells marker
Vimentin antibody	Sigma	Sigma-S6389	Type III intermediate filament MSCs marker
Alkaline phosphatase	Promega	S3841	Mixture of 5-bromo-4-chloro-3-indolyl-phosphate (BCIP) and nitro blue tetrazolium (NBT)
Ficoll-Paque	GE Healthcare	17-1440-02	Density gradient centrifugation
Cell strainer	BD Falcon	352340	40 μm nylon cell strainer
15-ml polystyrene conical tube	BD Falcon	351095	Sample collection and cell isolation
35 mm dishes	Nunc	153066	Cell culture dish
Bone marrow extractor	GmbH Medizintechnologie, Germany	1145-1W010	TrokaBone, 3.0 x 100 mm
Hematocritchamber	Marinfeld	640130	Cell counting chamber
Atropine	Jeil Pharmaceutical Co, South Korea		Atropine sulfate Hydrate

Acepromazine	Samu Median, South Korea		Pre-anaesthetic sedative and antiemetic drug
Medetomidine	Pfizer		Anesthetic and analgesic drug
Enrofloxacin	Bayer Healthcare, Germany		Anti-biotics
Meloxicam	Over Veterinary Medicine, Argentina		Anti-inflammatory and analgesic drug
Isoflurane	Hana pharm, South Korea		Inhalational anesthesia
Povidone iodine	Korea Pharma, South Korea		Sterilization agent
Ethanol	Sigma	E7023	Sterilization agent
Heparin	Sigma	H3393	Anti-coagulating agent
Formaldehyde	Sigma	F8775	Cell fixation agent
Ophthalmologic ointment	Pfizer		Oxytetracycline HCl with polymyxin B sulfate
Circulating water blanket	Gaymar Industries		Warming system during and after anesthesia
Skin stapler	Covidien, USA		Suture skin closure
CO ₂ Incubator	Thermo Forma	3111	Cell culture Equipment
Flow cytometer	BD Biosciences		Cell analyzer
Minipig	PWG Genetics Korea, Ltd.	T-type	Miniature pig