MSCM Mesenchymal Stem Cell Medium

Cat. No.: P4001

Introduction

Pericytes are structural cells widely distributed on the walls of microvessels throughout the body. Together with endothelial cells, they form the barrier between microvessels and tissue interstitium. Microvascular lesions in many diseases are accompanied by structural and functional abnormalities of pericytes, making the regulation of pericytes a research hotspot. Due to their morphology, pericytes are frequently confused with vascular smooth muscle cells (vSMCs), fibroblasts, macrophages and even epithelial cells. Studies have shown that Factor MB can promote pericyte growth, while B27 and N2 maintain the basic characteristics of pericytes. Therefore, besides basal medium and serum, this medium is supplemented with growth factors including MB, B27 and N2 to meet the requirements for cell growth.

The pericyte growth medium supplied by Shanghai Qida Biotechnology Co., Ltd. has been tested and optimized using 6 types of human pericytes from different sites, including human brain pericytes and retinal pericytes. It supports the growth of most pericytes. For cell isolation with this medium, it is recommended to increase serum content by 5% to obtain a higher cell yield. This medium has been tested and confirmed to be sterile, mycoplasma -free and endotoxin-free.

Components

Component	specifications	storage
PGM-b Pericyte Basal Medium(P4000)	500 mL	4℃
PGCS Pericyte Growth Supplement (P4002)	5 mL	−20℃
Fetal bovine serum（FBS）（SD0200）	10 mL	−20℃
G/A（Gentamicin–Amphotericin B Mixture Solution (100×)（SD0038）	5 mL	−20℃

Notes

100 mL as a complete endothelial culture medium.

Storage and Shipping

The basal medium is stored and shipped at 4°C.
Additives are shipped on dry ice and should preferably be stored at -20°C or below.

Disclaimer:
This products for research use only.
When isolating primary cells, add an extra 5% FBS if possible.
Thaw growth factors at 4°C.

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Technical Specifications

Parameter	Specification
pH	7.00–7.60
Osmolality	320.00–360.00 mOsm/kg
Endotoxin	<0.05 EU/ml

Aliquoting Method

Reagent	specifications	Qty	Split into 2 portions	Split into 5 portions	Storage
PGM-b Pericyte Basal Medium	500 mL	1bottle	repackaging 250 mL ,2 once	100 mL as 5 times	4°C
PGCS Pericyte Growth Supplement	5 mL	1 vial	2 single-use aliquots	average 5 aliquots	-20°C
Fetal bovine serum(FBS)	10 mL	1 vial	2 single-use aliquots	average 5 aliquots	-20°C
Gentamicin–amphotericin B solution (100×)	5 mL	1 vial	2 single-use aliquots	average 5 aliquots	-20°C

References / Publications

1. MicroRNA -21-3p regulation of NOX4 and VEGFA contributes to hemorrhage in cerebralcavernous malformations Xin-Xing Guo,Zhong-Run Huang,Pei -Sheng Chen,Qi Li,Jia Li,Zhong-Song Shi bioRxiv 2025.10.13.681886;doi:https://doi.org/10.1101/2025.10.13.681886

2.MicroRNA -21-3p regulation of NADPH oxidase 4 and vascular endothelial growth factor Acontributes to hemorrhage in cerebral cavernous malformations；https://doi.org/10.1016/j.ncrna.2026 .06.003

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