

Distributed by:



Milan Analytica AG
Baslerstrasse 15
4310 Rheinfelden
Switzerland
www.milananalytica.ch
info@milananalytica.ch

PL BioScience is known for their high-quality human platelet lysates as alternative for serum and/or serum-free cell culture media. The following products are available:



PLSolution,
research grade

PLMatrix,
research grade

PLSolution,
clinical grade

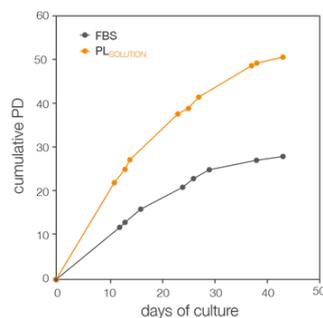
Features and Benefits

- Human-derived product rich in growth factors and proteins that maximize cell growth
- Pooled from multiple donors
- Manufactured to reduce lot-to-lot variation
- Extensive serology testing ensures safety for each lot
- Improves proliferation of MSCs compared to FBS without loss of phenotype
- Enhances genetic stability in stem cell cultures

Performance

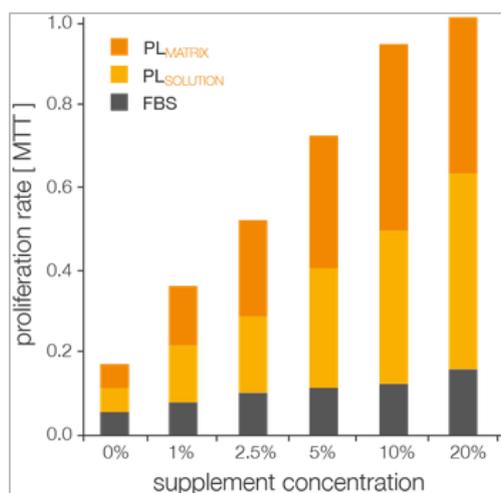
- Extensive pre-testing on batches
- Increases cell growth kinetics and reduce cell doubling time
- Enhances stem cell proliferation and reduces supplementation
- Maintenance of cell phenotype and differentiation potential

Population doubling



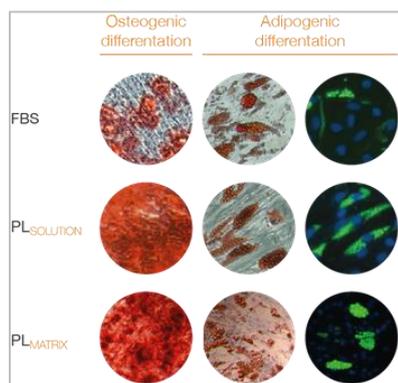
Cumulative population doubling of bone marrow-derived MSC was higher in PLSOLUTION compared to FBS.

Proliferation rate



Proliferation of human bone marrow-derived MSC increased in a concentration-dependent manner with PLMATRIX, PLSOLUTION and FBS, respectively.

Differentiation potential



Osteogenic and adipogenic differentiation potential of human bone marrow-derived MSC in FBS, PLSOLUTION and PLMATRIX.

Recommended for

- Human Mesenchymal Stromal Cells from Bone Marrow (hMSC-BM)
- Human Mesenchymal Stromal Cells from Umbilical Cord (hMSC-UC)
- Human Mesenchymal Stromal Cells from Adipose Tissue (hMSC-AT)
- Human Dermal Fibroblasts (HDF)

Safety Matters

- Standard testing of donor for infectious diseases
- Sterilized by 0.1 μm filtration (mycoplasma-free)
- Final product testing for microbial and endotoxin contamination
- Quality control testing carried out in a certified test laboratory

Availability

- bFGF and EGF-qualified
- Human MSC and dermal fibroblasts-qualified
- Sample aliquots available for testing in your specific conditions
- Lot reservations are available



How to order:

- PLSolution, research grade, 25 ml PLS-25.01
- PLSolution, research grade, 100 ml PLS-100.01
- PLSolution, GMP - clinical grade, 100 ml PLS-100.02
- PLMatrix, research grade, 5 ml PLM-005.01

Please inquire for more technical information

References

- Evaluation of human platelet lysate versus fetal bovine serum for culture of mesenchymal stromal cells. *Cytotherapy*. 2014; 16(2):170-180
- Pooled human platelet lysate versus fetal bovine serum-investigating the proliferation rate, chromosome stability and angiogenic potential of human adipose tissue-derived stem cells intended for clinical use. *Cytotherapy*. 2013; 15(9):1086-1097
- Platelet lysate from whole blood-derived pooled platelet concentrates and apheresis-derived platelet concentrates for the isolation and expansion of human bone marrow mesenchymal stromal cells: production process, content and identification of active components. *Cytotherapy*. 2012; 14(5):540-554
- Human platelet lysate as a fetal bovine serum substitute improves human adipose-derived stromal cell culture for future cardiac repair applications. *Cell Tissue Res*. 2012; 348(1):119-130
- Phenotypical and functional characteristics of mesenchymal stem cells from bone marrow: comparison of culture using different media supplemented with human platelet lysate or fetal bovine serum. *Stem Cell Res Ther*. 2012; 3(1):6
- Expansion of adipose mesenchymal stromal cells is affected by human platelet lysate and plating density. *Cell Transplant*. 2011; 20(9):1409-1422
- Impact of individual platelet lysates on isolation and growth of human mesenchymal stromal cells. *Cytotherapy*. 2010; 12(7):888-898
- Human platelet lysate permits scale-up of dental pulp stromal cells for clinical applications. *Cytotherapy*. 2011; 13(10):1221-1233
- Effect of platelet lysate on the functional and molecular characteristics of mesenchymal stem cells isolated from adipose tissue. *Curr Stem Cell Res Ther*. 2011; 6(2):105-114
- Human alternatives to fetal bovine serum for the expansion of mesenchymal stromal cells from bone marrow. *Stem Cell*. 2009; 27(9):2331-2341
- Human platelet lysate can replace fetal bovine serum for clinical-scale expansion of functional mesenchymal stromal cells. *Transfusion*. 2007; 47(8):1436-1446
- Platelet lysates promote mesenchymal stem cell expansion: a safety substitute for animal serum in cell-based therapy applications. *J Cell Physiol*. 2005; 205(2):228-236