

PLUS™ Cell Culture Supplement

PRODUCT DESCRIPTION

PLUS™ is a media supplement derived from human platelet rich plasma that supports the *in vitro* propagation and maintenance of human mesenchymal stem cells (hMSCs).

INTENDED USE

PLUS™ is for research or further manufacturing use only and not intended for human or animal diagnostic or therapeutic uses.

SAMPLE COLLECTION AND PROCESSING

PLUS™ is manufactured from platelet rich plasma obtained from blood donors who have been tested for communicable diseases including HIV I/II Antibody, HIV NAT, HTLV I/II Antibody, Hepatitis B Surface Antigen, Hepatitis B Core Antibody, Hepatitis C Virus Antibody, Hepatitis C NAT, and RPR for Syphilis.

Platelet rich plasma collected from large donor pools is subjected to a freeze-thaw process to induce release of growth factors and other proteins. Thawed product is centrifuged to remove a majority of cell debris and other particulate.

STERILITY TESTING

PLUS™ is aseptically processed. Aerobic, anaerobic, and fungal cultures tested negative.

STABILITY AND STORAGE

Frozen samples of PLUS™ may be maintained at $\leq -20^{\circ}\text{C}$ for at least 24 months (-80°C is recommended for longer-term storage). PLUS™ may be maintained at -80°C for at least 5 years. Upon thawing, it is recommended to aliquot and re-freeze samples of PLUS™ into one time use aliquots. Multiple freeze/thaw cycles should be avoided.

PARTICULATE FORMATION

Particulate formation when using PLUS™ is normal and does not affect performance. If desired, particulate can be cleared by centrifugation. Particulate formation can be minimized by avoiding multiple freeze/thaw cycles and/or extended storage of thawed product at $0-10^{\circ}\text{C}$.

WARNING

This product contains human source material and must be treated as potentially infectious. Universal handling precautions for biological samples are recommended. For more information, please see your site Safety Officer or contact us at info@compassbiomed.com.

FOR RESEARCH USE OR FURTHER MANUFACTURING
NOT FOR THERAPEUTIC OR DIAGNOSTIC USE

PREPARATION OF hMSC COMPLETE MEDIUM

1. Thaw PLUS™ overnight at 4°C or in a 37°C water bath. If desired, clear particulate by centrifugation. Aliquot and store unused PLUS™ at $\leq -20^{\circ}\text{C}$.
2. Prepare hMSC complete medium by adding 5% (v/v) PLUS™ to basal medium. For faster proliferation of hMSCs, use 10% (v/v) PLUS™.
3. Culture cells using standard hMSC methods for media changes and cell harvesting; however, cell growth should be closely monitored during culture due to increased proliferation rate compared to fetal bovine serum (FBS).
4. Complete medium stored at 4°C is stable for approximately four (4) weeks.

NOTES

PLUS™ has been extensively tested and shown to support the growth of bone marrow-derived hMSCs. Because both the donor and the source of hMSCs can significantly impact growth, titrating PLUS™ to determine optimum concentration for culture is recommended.

PRODUCT WARRANTY

Manufacturer warrants PLUS™ products to meet the claimed product specifications.

REFERENCES

- 1) Rauch C., Feital E., et al (2011) Alternatives in the use of Fetal Bovine Serum: Human Platelet Lysate as a Serum Substitute in Cell Culture Media; *ALTEX* (volume 28, No. 42).
- 2) Johansson, L., Klinth, J., Holmqvist, O., and Ohlson, S. (2003). Platelet lysate: a replacement for fetal bovine serum in animal cell culture? *Cytotechnol.* 42, 67-74.

TECHNICAL SUPPORT

If you have any product related questions, please feel free to contact our Customer Service by phone at (855) hPL-PLUS or by email at info@compassbiomed.com.



7100 Euclid Ave. Cleveland, Ohio 44103

FOR RESEARCH USE OR FURTHER MANUFACTURING
NOT FOR THERAPEUTIC OR DIAGNOSTIC USE