

SimPL^{SHOT} (Simplified Platelet Lysate – Lyophilized Serum Porcine)

Platelet lysate products are used as growth supplements for the culture of eukaryotic cells *in vitro* similar to the use of fetal bovine serum (FBS). Platelet lysates typically meet or exceed the performance of FBS due to their high growth factor content derived from platelet alpha-granules. SimPL^{SHOT} is a platelet lysate product derived from animal whole blood collected at approved abattoirs in the United States. This allows for large batch sizes and a consistent supply of product for industry and research organizations.

SimPL^{SHOT} is a lyophilized, serum-converted platelet lysate that does NOT require the addition of heparin to prevent precipitate formation or clotting as is the case with other platelet lysate products. Additionally, SimPL^{SHOT} does NOT require additional magnesium supplementation in the basal media before final formulation.

Although SimPL^{SHOT} serum is triple 0.1 µm filtered under aseptic conditions before being lyophilized, the powder should be treated as nonsterile. Final media formulated with SimPL^{SHOT} must be sterilized by aseptic filtration before use.

Typically, cell lines grown in media supplemented with FBS do NOT require adaptation schemes to acclimate to media supplemented with SimPL^{SHOT}.

SimPL^{SHOT} contains trypsin inhibitors similar to other sera, and final media supplemented with SimPL^{SHOT} can be used to inactivate trypsin used for passaging adherent cells.

SimPL^{SHOT} powder can be directly added to basal media with gentle agitation to mix (see Certificate of Analysis for dried weight to serum ratio) at ranges equivalent to 2-10% (v/v) of the original liquid serum. Deionized water may optionally be added to offset the impact that direct powder addition may have on osmolarity of final media according to the dried weight to serum ratio. Additionally, it should be noted that some cell lines perform substantially better (or require) less supplementation than the maximum suggested amount. The suggested final media preparation volume listed on SimPL packaging (denoted as “Size”) is equivalent to a 5% (v/v) liquid serum content.

Summary:

- Filter sterilize before use
- Does NOT require heparin
- Does NOT require added magnesium
- Suitable for use with trypsin
- Typically no adaptation required
- Comparable performance to FBS
- See CoA for dry weight to serum ratio

