SEAMLESS BIO
HIGH PERFORMANCE

Checkliste

How to Select the Right Serum for Your Cell Culture Application

1. Define Your Application
□ Which cell type am I using?
□ Primary cells, stem cells, viral production lines, or stable cell lines?
□ Is the system immune-sensitive (PBMC, NK, T-cells)?
□ Application area: diagnostics, virology, bioprocessing, basic research?
Rule of thumb: The more human-relevant the model, the stronger the case for Human Serum.

2. Choose Between FBS and Human Serum
□ FBS for broad compatibility and routine growth
□ Human Serum for immunology, PBMC, HEK293, AAV, diagnostic assays
□ Do I require species matching?
Ask yourself:
– Do I need maximum reproducibility?
– Are immunoassays or diagnostic readouts involved?
– Is xenogeneic interference a risk?

3. Evaluate Endotoxin Requirements
□ Is the application endotoxin-sensitive?
(PBMCs, viral titers, cytokine assays, immunoassays)
□ Do I require Low Endotoxin (<5 EU/mL) or Ultra-Low?
□ Are complete endotoxin test results available?
If YES: choose Low or Ultra-Low Endotoxin serum.

4. Check Documentation & Traceability
□ Country of origin clearly defined
□ Viral testing panel available
□ Batch CoA + QC data provided
□ Full traceability ensured
□ cGMP or equivalent standards met

Warning:
Missing documentation = risk for publications, audits, and QC deviations.

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5. Select Origin Based on Regulatory Needs
□ US origin
□ Australian origin
□ South American origin
□ EU origin (human)
Tip: Align regulatory requirements early.

6. Verify Processing Method
□ Sterile filtered (0.1 µm / 0.2 µm)
□ Gamma irradiated
□ Heat inactivated
□ Dialyzed
□ IgG-stripped
□ Charcoal-treated
Rule: More sensitive applications require higher processing control.

7. Perform Lot Qualification
□ Lot sample requested
□ Compared with current serum
□ Cell proliferation tested
□ Performance validated in target application
□ Media and buffer compatibility confirmed
Best practice: Use only the lot that was tested and approved.

8. Plan for Reproducibility & Supply Stability
□ Lot reservation possible?
□ Required duration (3–12 months)?
□ Storage conditions ensured (–20°C to RT)?
□ Quantity and forecast planned

9. Review Critical QC Parameters
□ Endotoxin
□ Osmolality
□ pH
□ Protein concentration
□ Sterility
□ Cell-growth performance

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10. Determine Batch Configuration
□ Single donor
□ Pooled batch
□ Human Type AB
□ Human mixed donor

11. Verify Ethical & Regulatory Compliance
□ Human donations from certified EU/US institutions
□ Animal sera ethically sourced under global guidelines
□ Transparent, documented origin

12. Confirm Logistics & Availability
□ Full cold-chain compliance documented
□ Realistic delivery timelines
□ Lot reservation without prepayment possible
□ Free testing volumes available?
□ Import, export & customs clearances prepared

Why SeamlessBio?

SeamlessBio provides reliable, fully documented and reproducible biological materials — from serum to specialty reagents.
We support your research with certified quality, stable supply chains and secure batch reservations.

Advantages:

- Test samples & reservation for 6 weeks
- Fully documented (CoA, Health Certificate, EMEA available)
- Flexible time for order after fixing the contract
- Best choice for the buyer