

## Invigentech Ultra-Low Endotoxin Fetal Bovine Serum (FBS) - Colombia Origin

≤5 EU/ml Endotoxin Standard · The Ultimate Solution for Sensitive Cell Culture

**Product Codes:** A6906FBS-500 (500ml) | A6906FBS-100 (100ml)

### Redefining Endotoxin Control Standards

- **Endotoxin Level:** ≤4 EU/ml (50% lower than international pharmacopeia standards)
- **Revolutionary Process:** Colombian Highland fetal bovine cardiac puncture → Patented Adsorption Chromatography → Triple 0.1µm Nanofiltration
- **Quality Control & Traceability:** Every batch undergoes screening for 9 viruses and mycoplasma testing across 12 cell lines. Sterility testing complies with USP/EP standards.

### Cell Compatibility: Breakthrough Support for Sensitive Models

- **Endotoxin-Sensitive Cell Types (Globally Lab-Validated):**
  - **Immune Cells:** BV-2 microglial cell activation | BMM polarization models.
  - **Neural Cells:** Long-term maintenance of Primary Neural Cells (hNPC/hOB/pH-BD) | PC12 neuronal differentiation.
  - **Stem Cell Applications:** Directed differentiation of hiPSC-CMs | 3D cardiac microtissue construction.

- **Organoid Culture:**
  - Drug sensitivity testing in Human Liver Tumor Organoids (HCC/CC)
  - Passage stability in Primary Murine Liver/Kidney Organoids
- **Broad Support for Tumor & Normal Cells:**(See Document 1 for extensive list)
  - *Frontline Tumor Models:* CRC (HCT-8/RKO/CW-2/human CRC organoids co-culture), Lung (A549/NCI-H1975/etc.), Breast (MCF-7/MB-231/BT549 3D spheroids), Hematologic (H929/KMS28BM/OCI-MY5/MM).
  - *Tissue Engineering Cells:* Epithelial (BEAS-2B/Primary DHBE/pNHBE), Fibroblasts (L929/NIH-3T3 co-culture).
  - *Cross-Species Models:* ST cells, Primary Sheep Preadipocytes, Goat SMSCs, 293T/HEK293.

## Four Core Values of Ultra-Low Endotoxin

### 1. Enhanced Viability for Sensitive Cells:

- 76% reduction in background cytokine interference during macrophage culture (vs. standard FBS).
- 42% increase in neurite outgrowth length (Primary hNPC data).

### 2. Organoid Modeling Advantage:

- Human liver tumor organoid passage stability extended to P10+ (Literature standard: P6-8).
- Supports tumor-immune co-culture models (e.g., BMM + OVCAR.5).

### 3. Inject-Grade Safety:

- Passes rabbit pyrogen test, meeting preclinical needs for cell therapy products.
- Endotoxin levels comply with USP Water-for-Injection (WFI) standards.

### 4. Global Translational Medicine Validation:

- Enabled EMBL team to overcome gene therapy vector production bottlenecks (Molecular Therapy, 2023).
- Chosen by 300+ institutions for CAR-T cell clinical applications.

### Technical Parameter Comparison:

| Parameter       | Standard FBS | Invigentech Colombia FBS       |
|-----------------|--------------|--------------------------------|
| Endotoxin       | ≤10 EU/ml    | ≤4 EU/ml                       |
| Virus Screening | 4 types      | 9 types                        |
| Mycoplasma Test | 3 cell lines | 12 cell lines + 9 virus models |

### Researcher Testimonial:

*"The ≤5 EU/ml endotoxin standard significantly reduced cytokine storm risk during CAR-T cell expansion."* - MD Anderson Cancer Center

### Upgrade Your Cell Culture System Today

**Order Now:**A6906FBS-500 (500ml) | A6906FBS-100 (100ml)

**Download Technical Documentation:** <http://www.invigentech.com>

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