

ZETA LIFE Premium Fetal Bovine Serum (Z7201FBS) Product Introduction

Elevate your cell culture research with ZETA LIFE Premium Fetal Bovine Serum (Catalog #Z7201FBS-100/500). Engineered to redefine excellence in cell culture, our serum combines breakthrough technology with rigorous quality control. Validated in hundreds of peer-reviewed SCI publications, Z7201FBS unlocks superior cellular performance for groundbreaking discoveries.

I. Uncompromising Quality Through Advanced Technology

- **Rare, Dual-Screened Sourcing:** Derived exclusively from 10-12 week gestation fetuses in EU-certified South American premier pastures. This critical developmental stage yields serum with high-potency growth factors and ultra-low immunoglobulin levels.
- **Stringent Traceability:** Fully documented individual animal traceability ensures batch-to-batch consistency and safety. Antibiotic-free and hormone-free protocols meet the highest EU animal welfare standards.
- **Scientifically Validated Performance:** Proven in *Nature Protocols* (2023) to significantly enhance retention of vital cell activity factors in stem cell cultures.

II. Comprehensive Cell Culture Solutions

(A) The Gold Standard for Stem Cell Culture

Validated in leading journals like *Cell Stem Cell*, Z7201FBS drives exceptional results:

- **Pluripotent Stem Cells:** Maintains robust colony morphology and stable expression of undifferentiated markers (OCT4, SOX2) in human embryonic stem cells (H9) for over 20 passages, supporting long-term pluripotency (*Stem Cells*, 2024).
- **Adult Stem Cells:** Increases proliferation and differentiation efficiency by 40% in bone marrow mesenchymal stem cells (BMSCs), adipose-derived mesenchymal stem cells (ADMSCs), and spermatogonial stem cells (SSCs). Accelerates bone defect repair via enhanced BMSC osteogenic differentiation (*Bone Research*, 2023).
- **Cancer Stem Cells (CSCs):** Boosts self-renewal capacity and drug resistance maintenance by 35% in prostate CSCs (PCSCs), enabling advanced therapeutic screening models (*Cancer Research*, 2024).

(B) Breakthrough Performance in Primary Cell Culture

Overcomes primary cell isolation challenges, validated in publications like *Journal of Cellular Physiology*:

- **Animal Primary Cells:** Extends functional activity to 14 days in primary rat hepatocytes, adipocytes, and chondrocytes. Elevates Type II collagen expression by 60% in chondrocytes (*Arthritis Research & Therapy*, 2023).
- **Special Species Cells:** Increases proliferation rate by 50% in primary mouse lung microvascular endothelial cells and human glomerular mesangial cells (HMCs). Achieves >85% attachment efficiency in primary large yellow croaker ovarian (LYCO) and testicular (LYC) cells (*Fish & Shellfish Immunology*, 2024).

- **Human Primary Cells:** Supports HMCs in podocyte injury models for diabetic nephropathy research (*Nephrology*, 2023).

(C) Enhanced Growth for Routine Cell Lines

Delivers superior results across 200+ cell lines, cited in top journals like *Nature*

Communications:

- **Tumor Cells:** Increases migration speed by 28% in invasion assays using human colon cancer cells (HCT116, SW620, SW480, HT-29) and lung cancer cells (A549, H2170, H520). Enhances EMT transformation efficiency by 32% in breast cancer cells (MDA-MB-231, MCF-7) (*Molecular Cancer*, 2024).
- **Immune & Neural Cells:** Accelerates inflammatory cytokine response by 40% in RAW264.7 macrophages and SH-SY5Y neuroblastoma cells. Achieves >80% neurite differentiation in PC-12 cells (*Journal of Neuroscience*, 2023).
- **Engineering & Specialized Cells:** Boosts viral packaging efficiency by 55% in 293T/HEK293T cells. Increases vaccine production titer by 40% in Vero cells. Maintains feeder layer potency in NIH-3T3 cells for iPS culture (*Nature Methods*, 2022).

III. The ZETA LIFE Advantage

- **35 Years of Cell Culture Expertise:** Core developer of the international serum-free medium DMEM/F12.
- **Sustained Innovation:** 20% of revenue reinvested in R&D, supported by 17 patented technologies.

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- **Global Scientific Collaboration:** Partnerships with leading institutions (UC, MIT)

ensure cutting-edge solutions. Our FBS-based hepatocyte (LO2, HL-7721) protocols are cited as standard methods in *Hepatology*.

IV. Dedicated Scientific Support

- **Researcher-Focused Services:**

* *Free Pre-Study Validation:* Receive a 10ml trial sample with a comprehensive *Cell Culture Performance Assessment Report*.

* *Custom Testing:* Optimize protocols for your specific cell lines (e.g., RPMI-8226, U266, A2780). Generate publication-ready supplementary data.

Choose ZETA LIFE Premium FBS (Z7201FBS-100/500) and partner with scientific

excellence. Its unmatched versatility—validated for stem cells (BMSCs, ADMSCs, H9), primary cells (LYCO, HMCs), and complex tumor models (SK-OV-3, CAL-27) in over 2000+ publications including *Science* journals—provides the foundation to accelerate your research and redefine what's possible in life science.