

## **ZETA life Fetal Bovine Serum (FBS) of French Origin (Z7186FBS)**

In the intricate world of cell culture, premium Fetal Bovine Serum (FBS) is a critical factor for experimental success. ZETA life's FBS of French Origin, available as Z7186FBS-100 (100ml) and Z7186FBS-500 (500ml), delivers exceptional quality, rigorous quality control, and broad cell applicability, offering significant value to distributors and life science researchers.

### **1. Origin & Foundational Quality**

#### **(1) Premium French Sourcing**

Sourced from meticulously managed French farms renowned for their ideal climate and pristine environment, optimal for bovine gestation. Strict animal husbandry standards ensure the health of every donor animal, guaranteeing serum quality at the source. France's advanced livestock practices and commitment to animal health and welfare result in FBS with inherent advantages, providing a pure, stable nutritional foundation for cell culture.

#### **(2) Stringent Manufacturing Process**

- **Aseptic Collection:** Blood is collected via sterile cardiac puncture under GMP-compliant conditions, preventing microbial contamination and preserving vital bioactive components essential for cell growth.

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- **Multi-Stage Sterile Filtration:** Utilizes an advanced 3-stage 0.1µm filtration system to effectively remove bacteria, fungi, mycoplasma, and other microparticles, ensuring a sterile final product and a safe cell culture environment. Each filtration step enhances serum purity and minimizes potential contamination risks.
- **Comprehensive Quality Testing:** Every batch undergoes over 50 rigorous tests covering endotoxin levels (<0.1 EU/ml), hemoglobin content, pH, osmolality, and other critical parameters. Ultra-low endotoxin levels prevent cytotoxic effects, supporting normal cell physiology. Strict hemoglobin control ensures serum clarity for optimal cell observation and experimental procedures.

## **2. Broad Spectrum Cell Culture Applications**

### **(1) Cancer Cell Research**

- **Lung Cancer Cells:** H1975, HCC827, A549. Exhibits strong viability and stable proliferation rates, ideal for lung cancer pathogenesis and anti-cancer drug screening studies (e.g., reliable drug response data in A549 screens).
- **Liver Cancer Cells:** HepG2, LO-2. Supports good attachment, normal morphology, and stable metabolic function/gene expression (HepG2), facilitating liver cancer biology and disease modeling.
- **Other Cancer Cells:** Supports optimal growth for diverse research, including:
  - Ovarian: HEY
  - Prostate: LNCap, C4-2

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- Breast: MCF-7
- Lung: A431 (Adenocarcinoma)
- Gastric: SGC7901, HGC27, MGC803
- Esophageal: TF1, EC109, KYSE-450, EC9706
- Colon: SW620, HT29, COLO205

## **(2) Stem Cell Culture**

- **Mesenchymal Stem Cells (MSCs):** Supports high viability and differentiation potential in canine BMSC and rat BMSC for tissue engineering and regenerative medicine (e.g., efficient osteogenic differentiation in rat BMSC for bone repair).
- **Embryonic Stem Cells (ESCs):** Maintains undifferentiated state and good colony morphology in human ESCs (e.g., H9), ideal for pluripotency and directed differentiation studies.
- **Primordial Germ Cells (PGCs):** Ensures stable proliferation and differentiation capacity in chicken PGCs for avian reproductive development research.

## **(3) Primary Cell Culture**

- **Animal Tissue Primary Cells:** Supports attachment, growth, and maintenance of primary characteristics in diverse cells like mouse pancreatic acinar cells, mouse adipose primary cells, porcine luteal cells, porcine placental trophoblast cells, chicken hepatocytes, and chicken embryonic germ cells. Enables physiological/pathological studies (e.g., stable digestive enzyme secretion in mouse pancreatic acinar cells).

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- **Specialized Primary Cells:**Also suitable for rat smooth muscle cells, bat primary cells, and grass carp sarcomatous cells, enabling research in specialized areas like aquatic disease management.

#### **(4) Common Cell Lines**

Supports robust growth and passage for a wide array of standard cell lines across research fields:

- **Immune Cells:**RAW264.7 (mouse monocyte/macrophage), THP-1 (human monocytic leukemia), DC2.4 (mouse dendritic). Maintains normal immune activity/function for immunology and immunotherapy research (e.g., reliable phagocytosis assays with RAW264.7).
- **Neuronal Cells:**SH-SY5Y (human neuroblastoma), PC-12 (rat pheochromocytoma). Promotes healthy morphology and neurite outgrowth for neurodevelopment and neurodegenerative disease studies (e.g., normal differentiation of SH-SY5Y into neuron-like cells).
- **Other Common Lines:** HK2 (human kidney), GES-1 (human gastric mucosa), A375 (human melanoma), HEK293, HeLa, L929 (mouse fibroblast), Sp2/0 (mouse myeloma), USMC (rat smooth muscle), AEC (rat alveolar epithelial primary), GCO (grass carp gonad), CIK (grass carp kidney), Vero (African green monkey kidney), LMH (chicken hepatoma), PK15 (porcine kidney), MDCK (canine kidney), ZF-4 (zebrafish fibroblast).

### **3. ZETA life Brand Advantages**

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## **(1) Extensive Industry Expertise**

Founded in 1989, US-based ZETA life possesses over 30 years of specialized experience in FBS, serum-free media, and mammalian cell culture systems. As a key contributor to the international standard DMEM/F12 serum-free medium, our technical strength and industry standing are globally recognized. Continuous R&D and production refinement ensure our FBS precisely meets evolving research demands.

## **(2) Rigorous Quality Management System (QMS)**

Full traceability from source to final product, supported by complete documentation (source certificates, veterinary inspection reports, CoA). Manufactured automatically in Class 100 cleanrooms to minimize human intervention and ensure batch-to-batch consistency. Our QMS guarantees premium quality and experimental reproducibility, eliminating concerns about serum variability.

## **(3) Commitment to Innovation**

In 2018, ZETA life collaborated with UCSF to develop an advanced, metabolizable in vivo/in vitro DNA/RNA transfection reagent, critical for protein function, immunology, and stem cell therapy R&D. This drive for innovation reflects our dedication to cutting-edge science and enhances the technological value of our FBS products.

## **4. Support for Distributors & Researchers**

### **(1) Distributor Support Program**

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- **Comprehensive Marketing Support:** Access detailed product information, promotional materials (posters, flyers), and scientific literature. Receive market development training, industry insights, and sales strategies.
- **Reliable Supply Chain:** Benefit from strong production capacity and efficient logistics ensuring consistent stock availability and flexible ordering options for all scales.
- **Exclusive Territory Protection:** Operate within clearly defined, protected sales regions to prevent internal competition and safeguard distributor interests.

## **(2) Researcher Support Services**

- **Technical Consultation:** Our expert team provides timely assistance with serum usage, culture optimization, and experimental analysis.
- **Free Sample Program:** Test our serum in your specific application with a complimentary sample before purchasing, minimizing procurement risk.
- **Custom Protocol Development:** Receive personalized cell culture protocol design based on your unique experimental goals and our product characteristics, enhancing your success rate.

**Choose ZETA life Fetal Bovine Serum (FBS) of French Origin (Z7186FBS-100/500) – the high-quality, reliable partner for your cell culture success. We are committed to empowering distributors and researchers alike, supporting your journey to scientific breakthroughs.**

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[www.zeta-life.com](http://www.zeta-life.com)

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