



Livestock Labs – Bovine Dermal Fibroblast Cell Line (Engineered for Long-Term Expansion)

Product overview

Engineered bovine dermal fibroblasts derived from tissue collected postmortem and post-rigor at an FSIS-inspected USDA facility and processed into primary cells by an academic cell culture facility. The line was modified via HDR-mediated targeted cassette integration, incorporating one immortalization factor and three pro-proliferative factors to support sustained proliferation and long-term expansion for cultivated animal product research and process development.

Sourcing and compliance

Donor animals were raised under IACUC-approved protocols within an AAALAC-accredited program following Agriculture Guide standards. A traceability and documentation package is provided to support customer quality systems and future regulatory dossiers (end-user responsibility).

Specifications

- **Species:** Bovine (*Bos taurus*)
 - **Cell type:** Fibroblast
 - **Tissue type:** Dermal connective tissue
 - **Donor:** Female, 21 months
 - **Engineering:** HDR-mediated targeted cassette integration (immortalization + pro-proliferative factors)
 - **Identity/characterization:** Morphology images; karyotype; transcriptome profiling with PCA-based identity assessment; fibroblast-associated gene expression analysis
 - **Characterized through passage:** P45
 - **Doubling Time:** 23 hours average (replicate averages: 20.23–25.15 hours)
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What's included

- **One clonal variant:** LLIBF001
- **One-year research license** (academic and industry research pricing available)
- **Documentation pack** including: donor and sourcing summary, characterization summary, morphology images, long-term culture identity (karyotype + transcriptome PCA), recommended culture media, and storage/growth protocols
- **Technical support** plus ongoing media optimization updates and protocol refinements during the license term (no additional subscription required)
- **Additional services (quoted separately):** Custom engineering available upon request (targeted edits and trait integration).

Documentation and COA

A lot-specific Certificate of Analysis (COA) and documentation pack are provided with shipment and/or available upon request for qualified buyers.

Intended use and restrictions

For Research Use Only (RUO). Not for human or animal therapeutic use, diagnostic use, or consumption. End users are responsible for ensuring suitability for their specific applications and any regulatory submissions.