ITSE Animal-Free®

Recombinant Cell Culture Media Supplement (100 x) Animal-Origin-Free

ITSE Animal-Free



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1. PRODUCT DESCRIPTION

ITSE Animal-Free® (ITSE AF) is a chemically defined, animal-origin-free (AOF) 100x liquid basal media supplement containing recombinant insulin (1.00 g/L), recombinant transferrin (0.55 g/L), sodium selenite (0.00067 g/L), and ethanolamine (0.20 g/L) in a balanced salt solution. The 100x format allows for lower volume additions and easier handling compared to 5x or 10x alternatives.

ITSE AF is designed to offer a defined alternative to fetal bovine serum (FBS) or traditional ITSE (Insulin, Transferrin, Selenium, Ethanolamine) supplements, enhancing cell growth by supporting nutrient uptake, iron transport, lipid metabolism, and oxidative balance. It enables serum-free, reproducible performance in defined media formulations across R&D and manufacturing.

This product is regulatory-friendly and eliminates risks associated with animal- or serum-derived components. Like all InVitria products, it is made in an ISO 9001–certified, cGMP-compliant U.S. facility that is certified animal-origin-free (AOF), with documented controls preventing the use or presence of animal-derived materials.

2. PRODUCT INFORMATION

GMP Part Number	777ITS032
Product Type	Cell culture supplement
Format	Liquid
Composition	rh-Insulin – 1.00 g/L rh-Transferrin – 0.55 g/L Selenium – 0.00067 g/L Ethanolamine – 0.20 g/L
Concentration	100x
Packaging	10 mL, 100 mL, and 1 L bottles
Sterility	Sterile - filtered
Endotoxin Level	≤ 1.00 EU/mL
Osmolality	265 to 310 mOsm/kg
pH	7.70 - 8.70
Conductivity	13.7-16.7 mS/cm
Source	Recombinant
Shelf Life	2 years
Storage	2–8°C
Manufacturing Site	• Animal-origin-free facility • ISO 9001–certified • cGMP-compliant

GUIDELINES FOR USE

3. APPLICATIONS

- Enables serum reduction or elimination in cell culture media
- Fully reconstituted 100 x supplement simplifies workflows—no need to mix insulin, transferrin, selenium, and ethanolamine individually
- Suitable for CHO, HEK293, hybridoma, stem, and primary cell workflows
- Improves cell productivity, viability, and media stability in chemically defined systems
- Used in protein expression, viral vector production, vaccine development, and cell therapy manufacturing
- Supports chemically defined, animal-origin-free, and regulatory-friendly bioprocessing

4. PREPARATION & USE

Format: This product is supplied as a sterile-filtered liquid 100x concentrate.

Mixing: Mix gently before use; avoid foaming.

DO NOT SHAKE OR VORTEX.

Recommended usage:

- For 1x final concentration: Add 10 mL of ITSE to 990 mL of basal media.
- For 2x final concentration (for serum-free adaptation or demanding cell lines): Add 20 mL of ITSE to 980 mL of basal media.
- **Optimization**: Adjust final concentration based on specific cell type, media formulation, and performance needs.

5. STORAGE & STABILITY

- **Shelf life:** Up to 2 years when unopened and stored at 2–8°C.
- **Diluted solutions:** (1×) should be stored at 2–8°C and used within 2 weeks.
- Keep tightly sealed to avoid contamination.
- **AVOID:**
  - Freezing
  - Prolonged exposure to temperatures >25°C
  - Direct sunlight or UV exposure
  - Vigorous agitation (shaking, vortexing, etc.)
  - Contact with oxidizing agents
  - Opening outside a sterile environment

6. REGULATORY NOTES

- Animal-origin-free (AOF)
- Chemically defined
- Manufactured in a cGMP-compliant, ISO 9001-certified facility
- Manufactured in the USA for reliable sourcing and regulatory alignment
- Ethically sourced & sustainable

7. ADDITIONAL RESOURCES

- Website - ITSE Animal-Free
- Data Sheet - ITSE Animal-Free
- SDS - ITSE Animal-Free
- Guidelines for Use - ITSE Animal-Free
- Application Note: Reducing Serum-Associated Contaminants from Growth Media in Primary Cell Culture

8. ORDERING INFORMATION

ITSE Animal-Free	*Product #*
GMP-10 mL bottles	777ITS032-10mL
GMP-10 x 10 mL bottles	777ITS032-10mLx10
GMP-100 mL bottles	777ITS032-100mL
GMP-1 L bottles	777ITS032-1L

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