

4Cell[®] Insect CD Medium

Chemically Defined (CD) Medium for Insect Cells for fast cell growth and excellent productivity

Benefits

Developed to meet the needs of biotechnology and vaccine manufacturing, this chemically defined medium supports rapid initial insect cell growth, increased productivity and offers:

- **Production Efficacy:** High cell growth & high virus titer
- **Operational Efficiency:** Accelerated manufacturing process & simplification of filterability and downstream purification
- **Safety & Regulatory-friendly:** Reduced process variability and contamination risks
- **Enhanced consistency and reproducibility:** Completely chemically defined medium & consistent performance



Product Information

The 4Cell[®] Insect CD Medium is a complete, chemically-defined, serum-free, protein-free, animal component-free, hydrolysate-free medium designed to support the growth of insect cell lines derived from *Spodoptera frugiperda*. In cultures of Sf9 cells it routinely supports cell growth to densities of 1×10^7 cells/mL with greater than 95% viability. Sf9 cells have been carried for more than 100 generations (30 passages) in 4Cell[®] Insect CD Medium with no loss of viability.

This formulation is ready-to-use and suitable for suspension cultures. It supports superior production of virus like particles (VLPs) and recombinant proteins when using the Baculovirus Expression Vector System (BEVS).

Applications

4Cell[®] Insect CD Medium is a chemically defined medium formulation to optimize cell growth and to maximize virus and protein expression. Ideally suitable for:

- Baculovirus propagation
- Recombinant protein expression
- Scale-up manufacturing

Features of the Standard Product



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- CD** **Chemically Defined:** The exact concentration and size of every component is known
- NAO** **Non-Animal Origin:** the formulation is entirely made from non-animal | -human origin components
- PF** **Protein-free*:** the formulation does not contain any protein
- FFM** For research or for further manufacturing use
- Product available in powder format on request
- Product available in liquid format

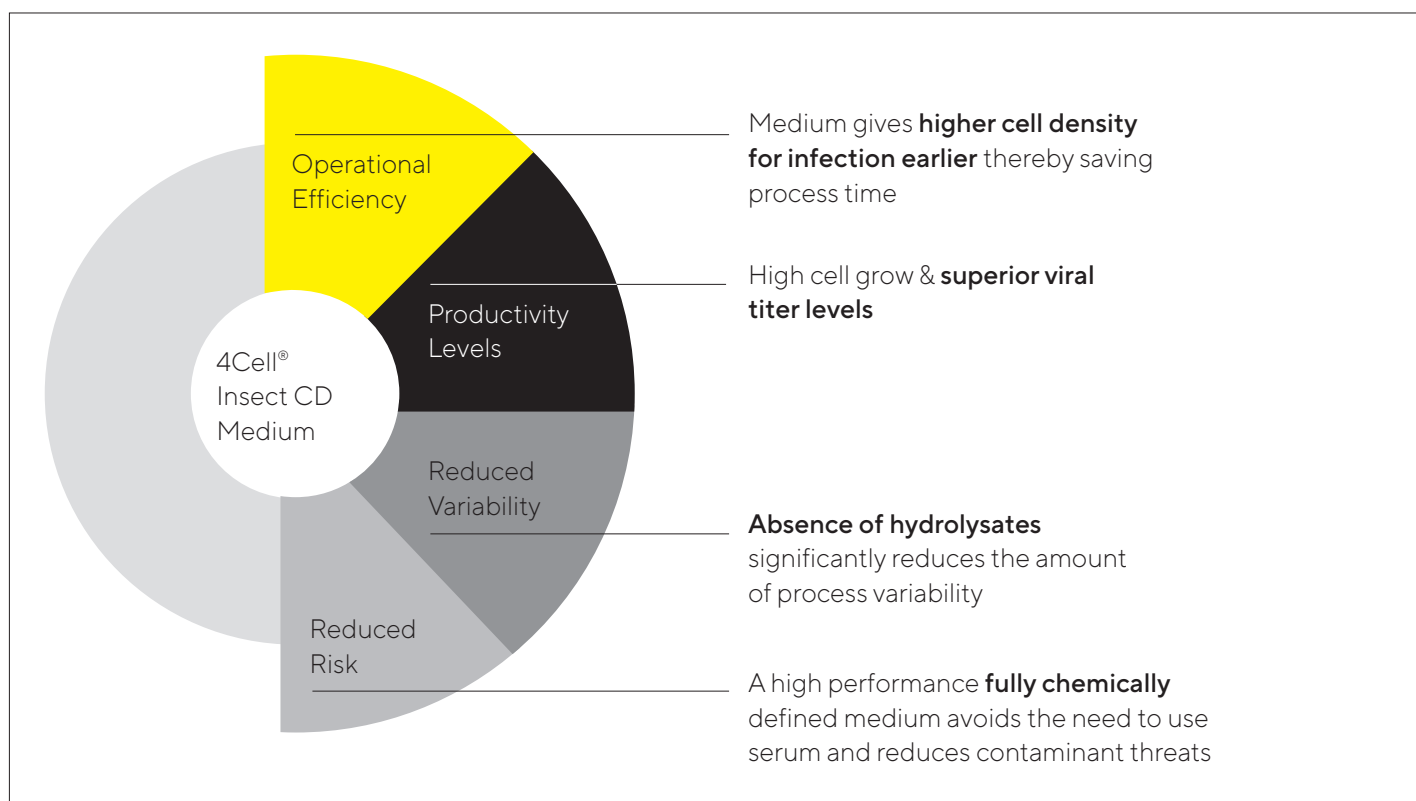
* fully characterized peptides <5 kDa are not considered a protein

Technical Data

Specifications

Media Type	Chemically-defined medium: does not contain serum or undefined components
Easy-to-use	With L-glutamine and Pluronic F-68 (membrane shearing protector)
Cell Line	Developed for suspension <i>Spodoptera frugiperda</i> Sf9 cells, but suitable for other insect cells
Storage Condition	2-8°C, protect from light

Your Benefits at a Glance



Comparison of Peak Cell Density, Infection Period and Baculovirus Production

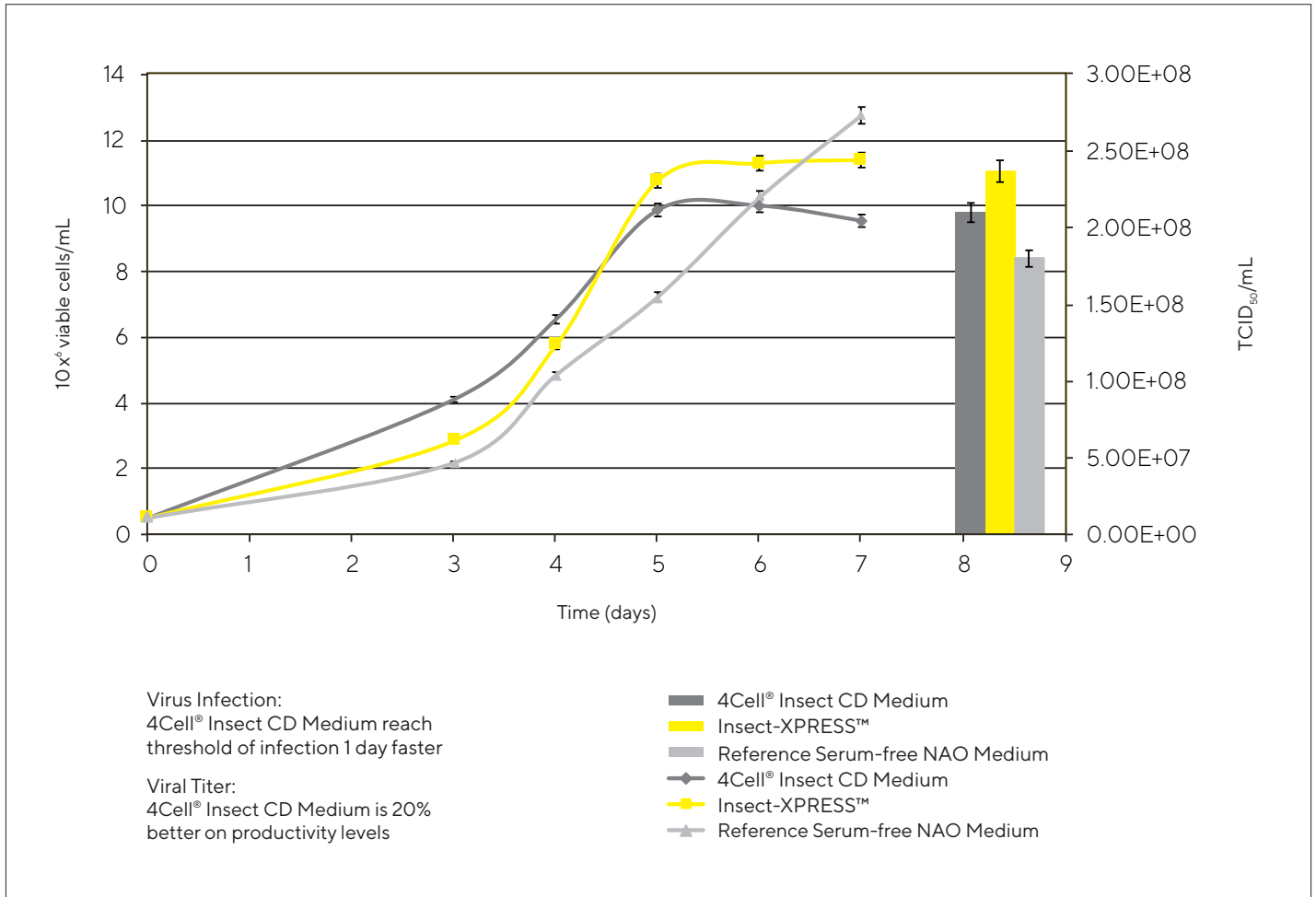


Figure 1: Sf9 cell growth and baculovirus production in 4Cell® Insect CD Medium compared to other insect cell culture media (Insect-Xpress™ and Reference Serum-free NAO Medium). Sf9 cells were sequentially adapted to all tested animal origin-free media. Once the cells were adapted to each test medium (a total of 5 passages post-recovery), growth curves were determined by seeding 25 mL of medium in 125 mL shake flasks at a seeding density of 5×10^5 viable cells/mL. When cells reached 3×10^6 (day 2 using 4Cell® Insect CD Medium) an infection with a MOI of 0.1 was performed using Baculovirus. Each test condition represents the average of 3 replicates per test condition.

Abbreviations: TCID50: 50% Tissue Culture Infective Dose; MOI: Multiplicity of Infection; NAO: Non-Animal Origin.

Ordering Information

Description	Form	Package	Volume Size	Order Code
4Cell® Insect CD Medium	Liquid*	Bottle	1 L Box of 2 × 1 L	CFV3FA1001
4Cell® Insect CD Medium	Liquid*	Bottle	1 L Box of 6 × 1 L	CFV3FA1002

* Others sizes and formats are available on request

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