## OptiPro<sup>™</sup> SFM

• Ideal for virus and recombinant protein production

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- Minimizes potential for contamination by pathogens
- Suitable for multiple mammalian cell lines

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Speeds downstream purification

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Researchers and manufacturers involved in virus production are increasingly concerned about the risk of culture contamination by viruses and prions.

OptiPro<sup>™</sup> SFM is one of an ever-widening variety of GIBCO<sup>™</sup> serum-free media expressly designed for virus production. It is manufactured without any components of animal or human origin. This minimizes the potential for contamination by mammalian pathogens and eliminates many of the problems associated with the use of animal sera.

Engineered for the cultivation of mammalian cell lines for virus production and recombinant protein production, OptiPro<sup>™</sup> SFM provides cell growth and virus production equivalent or superior to serum-supplemented systems. It is economical to use in large-scale production and its ultra-low protein concentration (7.5 ug/mL) eases downstream purification. One factor that immediately differentiates OptiPro<sup>™</sup> SFM from other serum-free media is its great versatility—it sustains the growth of a broad range of kidney epithelial cell lines at levels equal to or better than serum-supplemented and serum-free formulations. It has demonstrated production of multiple viruses to high titer in multiple kidney-derived cell lines including BHK-21, MDCK, MDBK, and PK-15. It is also suitable for the growth of COS-7 and HeLa cell lines.

OptiPro<sup>™</sup> SFM is also the only serum-free medium for these applications that is devoid of human- and animal-origin components and does not require the addition of attachment proteins or pre-treatment of the attachment surface.





Figure 1. Cultures carried for 4 subcultures in respective media. Counts represent the average for two 25 cm<sup>2</sup> flasks. Titer of inoculum:  $5 \times 10^5$  TCID<sub>50</sub>/mL. 0.1 mL virus/10 cells. Length of incubation dictated by % CPE in the serum control.



Figure 2. Cultures carried for 6 subcultures in respective media. Counts represent the average for two 25 cm<sup>2</sup> flasks. Titer of inoculum:  $1.3 \times 10^8$  TCID<sub>50</sub>/mL. 0.1 mL virus/10 cells. Length of incubation dictated by % CPE in the serum control.



## Growth of Cells and Virus in OptiPro<sup>™</sup> SFM: Cell Factories



Figure 3. Cell factories plated with  $7.2 \times 10^6$ cells and counted and inoculated on Day 3. Titer of inoculum:  $1 \times 10^8$ /TCID<sub>50</sub>/mL. 0.1 mL virus/10 cells.

\* Contains animal-derived proteins.



Figure 4. Cell factories plated with 9.6  $\times$  10<sup>6</sup> cells and counted and inoculated on Day 3. Titer of inoculum: 1  $\times$  10<sup>8</sup>/TCID<sub>50</sub>/mL. 0.1 mL virus/10 cells. High cell counts were due to the lack of contact-inhibition with MDBK cells.

\* Contains animal-derived proteins.

## **Ordering Information**

Description	Cat. No.	Size
OptiPro <sup>™</sup> SFM (1X), liquid	12309-019	1,000 ml
Related Products		
VP-SFM (1X), liquid	11681-020	1,000 ml
Opti-MEM® I Reduced-Serum Medium (1X), liquid*	31985-070	500 ml

All of the formulations listed above can be customized to suit your needs. Please inquire.

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