

- *Designed for the growth of several cell lines of interest in Virology, Vaccine Production and Biotechnology*
- *Formulated without human and animal proteins and peptides, and without L-glutamine*
- *Contains a very low level of recombinant protein*
- *An economical alternative to serum-supplemented systems*

VP-SFM is one of several GIBCO™ serum-free media expressly designed for virus production.

Manufactured without any components of animal or human origin, these unique formulations minimize the potential for contamination by mammalian pathogens, eliminating many of the problems associated with the use of animal sera. These media provide cell growth and virus production equivalent or superior to serum-supplemented systems and are economical to use in large-scale production.

GIBCO™ VP-SFM is a serum-free, ultra-low protein medium designed specifically for the culture of VERO cells. It is also appropriate for the growth of COS-7, MDCK, BHK-21 in suspension, and HEp2 cell lines. It is particularly suitable for growing viruses, as well as other cell culture applications, such as producing recombinant proteins and monoclonal antibodies.

The trace protein in VP-SFM is from a recombinant source. Transferrin has been replaced with an iron chelate, and albumin has been replaced with di- and tripeptides from plants. The only additive required is L-glutamine which, depending on the cell system used, should be added at a concentration of 2 to 6 mM.

Many cell lines, such as VERO, BHK and HEp2 require no adaptation to VP-SFM; however, some cells may require sequential adaptation that is further explained in the product insert.

### Superior Products Supported by Superior Service

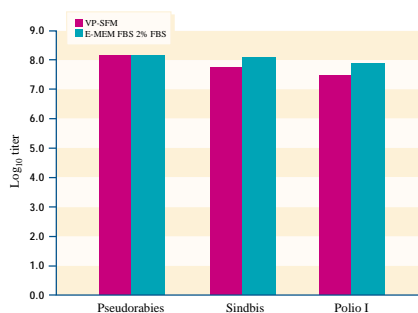
GIBCO™ products are manufactured in facilities that are ISO-9001 certified and compliant with guidelines established by the Food and Drug Administration's Quality System Regulation (QSR/cGMP).

The Invitrogen Tech-Line™ is staffed by scientists who can answer your questions about products, applications, protocols, literature references, and troubleshooting.

Through [www.invitrogen.com](http://www.invitrogen.com), you can order any product and access Tech-Online™, another comprehensive source of information.

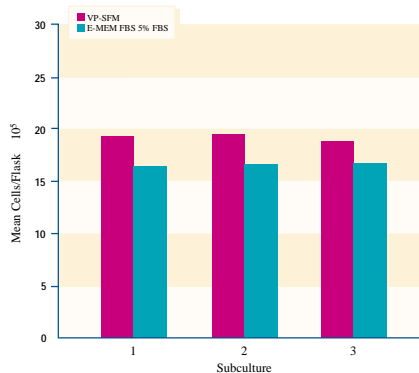
We also offer custom services that include media optimization, custom manufacturing, process design and specification development, specialized testing, and options for lot sizes and packaging.

## Virus Titration in VERO Cells



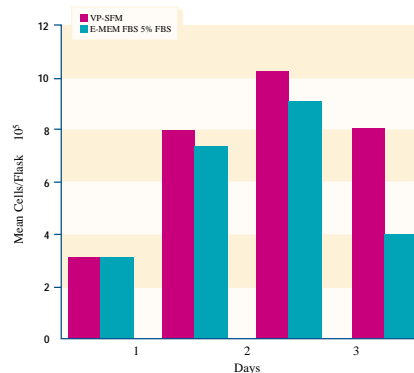
**Figure 1. Virus titration results in VERO cells.** Virus production in triplicate plates using VERO cells grown in either VP-SFM or E-MEM with 2% FBS.

## VERO Cell Growth



**Figure 2. VERO cell growth comparison.** VERO cells were passaged every 4 days for 3 subcultures at  $2.5 \times 10^5$  cells/25 cm<sup>2</sup> plastic flask in VP-SFM or E-MEM with 5% FBS.

## BHK-21 Cell Growth



**Figure 3. BHK-21 cell growth comparison.** BHK-21 cells were grown in suspension in shaker flasks in duplicate on an orbital shaker for 5 days without refeeding in VP-SFM or E-MEM with 5% FBS.

## Ordering Information

Description	Cat. No.	Size
VP-SFM (1X), liquid	11681-020	1,000 ml
<b>Related Products</b>		
OptiPro™ SFM (1X)	12309-019	1,000 ml
Opti-MEM® I Reduced-Serum Medium (1X), liquid*	31985-070	500 ml
	31985-088	10 × 500 ml (case)
AlbuMax® I	11020-021	25 g
AlbuMax® II	11021-029	25 g
L-Glutamine-200 mM (100X), liquid	25030-081	100 ml
COS-7L Cells, SFM Adapted	11622-016	3 ml
Trypsin, 0.25% (1X), liquid	15050-057	500 ml
Trypsin-EDTA, 0.25% Trypsin, 1 mM EDTA.4Na (1X), liquid	25200-072	500 ml
Trypsin Inhibitor, soybean	17075-029	1 g

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