

# SF501 LMH Serum-Free Media

## A serum-free medium especially developed for efficient large-scale culture of LMH cells

SF501 medium is an innovative serum-free medium developed independently by Shanghai BioEngine Sci-Tech Co., Ltd., which is serum-free, protein-free and animal-derived component-free. It is the first medium for serum-free total suspension culture of LMH cells in China. It supports efficient acclimation of adherent LMH cells and high density growth of suspension cells, and provides a high-quality environment for efficient expression of avian adenovirus vaccines. SF501 is your ideal choice for large-scale industrial suspension culture of LMH cells: the suspension culture system provides you with a significant increase in production efficiency, while the serum-free culture system provides you with maximum process stability. Currently, it has been applied on a large scale in a number of avian adenovirus vaccine production projects.

### Features

- Serum-free
- Animal-derived component-free
- Protein-free
- Suitable for suspension acclimation of LMH cells
- Supporting high-density culture of LMH cells
- Supporting LMH cells for efficient amplification of avian adenovirus



SF501 LMH Serum-Free Medium

### Advantages

- **The first medium in China for industrial application of avian adenovirus production based on serum-free suspension culture of LMH cells.**
- Full traceability by EU-certified ISO13485:2016 Quality management System;
- Excellent inter-batch consistency (CPK\*>1.33);
- Optional powder media for use in large-scale manufacturing with easy preparation procedures;
- Powder media capable of a single batch size of 100,000 L.

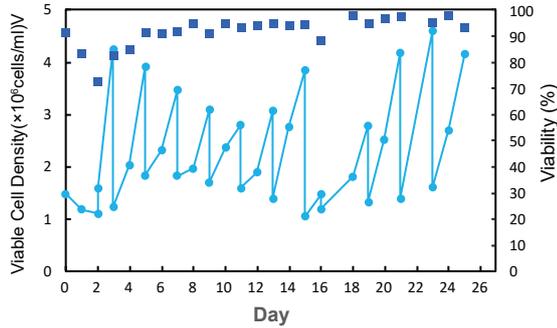
\*CPK: Process Capability Index; a CPK>1.33 indicates good process control and small inter-batch difference in products

### Ordering Information

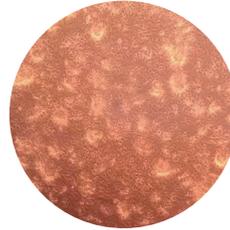
| Product Name                | Cat. No.   | Form   | Size | Package | Other                            |
|-----------------------------|------------|--------|------|---------|----------------------------------|
| SF501 LMH Serum-free Medium | EXP0105703 | Powder | 200L | Bag     | [+]-L-Gln [-]-NaHCO <sub>3</sub> |
|                             | EXP0105701 | Powder | 100L | Bag     | [+]-L-Gln [-]-NaHCO <sub>3</sub> |
|                             | EXP0105702 | Powder | 10L  | Bag     | [+]-L-Gln [-]-NaHCO <sub>3</sub> |
|                             | EXP0100901 | Powder | 1L   | Bag     | [+]-L-Gln [+]-NaHCO <sub>3</sub> |

# Performance

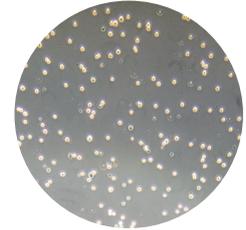
- LMH adherent cells could be directly acclimated in *SF501* without serum for rapid adaptation to the suspension culture system.



- LMH cells were acclimated from adherent state to suspension culture, and they were individually dispersed and translucent in morphology with a uniform cell size.

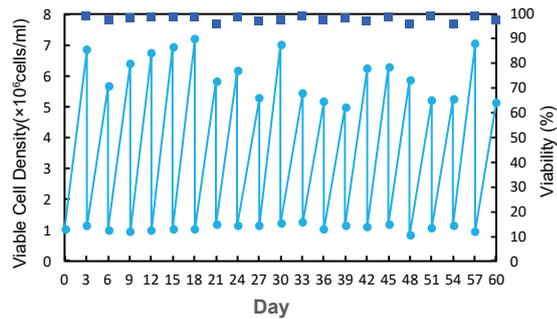


LMH Adherent cells

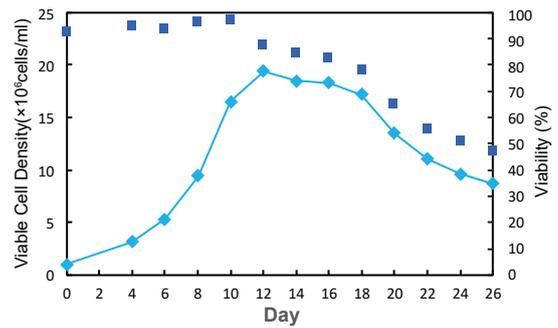


LMH Suspension cells

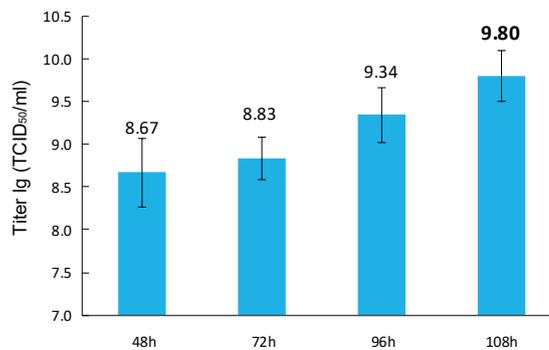
- Successfully acclimated LMH suspension cells were inoculated at  $1 \times 10^6$  cells/ml in *SF501*, and LMH cell density reached  $5-7 \times 10^6$  cells/ml in 72 h, with high viability for long-term stable passages.



- LMH cells were inoculated at  $1 \times 10^6$  cells/ml in *SF501* and reached a maximum density of  $2 \times 10^7$  cells/ml with a plateau period of up to 4 days.



- Using *SF501* suspension culture of LMH for serum-free production of avian adenovirus (serotype 4) achieved the highest titer of  $10^{9.5-10.1}$  TCID<sub>50</sub>/ml, comparable to that of adherent serous culture ( $10^{8.7-9.3}$  TCID<sub>50</sub>/ml). Suspension culture allows for a significant increase in production efficiency.



## 30 years of ingenuity on creating a novel drive for cell culture



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