

### 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

# Section 1 Section 1

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 anagement System;
- © Excellent inter-batch consistency (Cpk≥1.33, RSD < 5%)\*;
- Optional powder media for use in large-scale manufacturing with easy preparation procedures;
- O Powder media capable of a single batch size of 100,000 L.

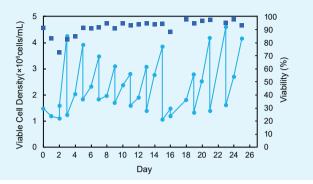
\*Critical indicator Cpk ≥ 1.33. Cpk is a standard index to state the capability of one process. Cpk ≥ 1.33 indicates the process is capable and meets specification limits. PPM mixing uniformity RSD < 5%. RSD refers to relative standard deviation, lower RSD indicates reduced variability in the production process.

#### **Ordering Information**

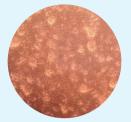
|    | Product Name                | Cat. No.   | Form   | Size | Package | Other                          |
|----|-----------------------------|------------|--------|------|---------|--------------------------------|
|    | SF501 LMH Serum-free Medium | EXP0105703 | Powder | 200L | Bag     | [+]L-Gln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

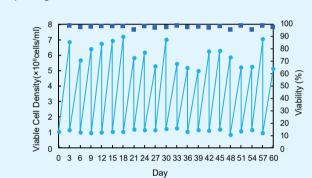




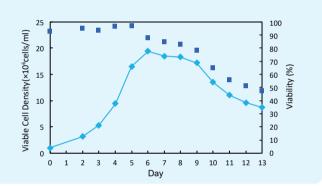
LMH Adherent cells

LMH Suspension cells

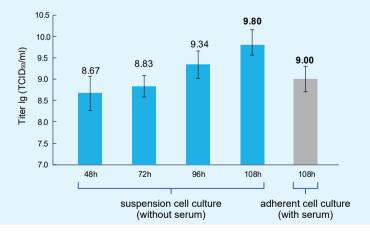
Successfully acclimated LMH suspension cells were inoculated at 1×10<sup>6</sup> cells/ml in SF501, and LMH cell density reached 5-7×10<sup>6</sup> cells/ml in 72h, with high viability for long-term stable passages.



LMH cells were inoculated at 1×10<sup>6</sup> cells/ml in SF501 and reached a maximum density of 2×10<sup>7</sup> 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<sup>9.5-10.1</sup> TCID<sub>50</sub>/ml, comparable to that of adherent serous culture (10<sup>8.7-9.3</sup> TCID<sub>50</sub>/ml). Suspension culture allows for a significant increase in production efficiency.





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