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BioWhittaker™ Insect-XPRESS™ Protein-free Insect Cell Medium

Instructions for Use

Introduction

Insect-XPRESS™ Medium 1X liquid (Cat. No. 12-730) was developed to support the growth of invertebrate cell lines derived from the fall army worm, *Spodoptera frugiperda*. The Insect-XPRESS™ Medium formulation is protein-free (all components are less than or equal to 10,000 mwt.). Cell densities in excess of 8.3 x 10^6 cells/ml have been achieved with suspension cultures of Sf9 cells using Insect-XPRESS™ Medium and an excess of oxygen. Insect-XPRESS™ Medium may also be used for stationary monolayer cultures and shake-flask cultures.

Applications

- Baculovirus propagation
- Recombinant protein expression

Instructions for Use

Insect-XPRESS™ Medium is a protein-free formulation designed to support the growth of insect cells under attachment dependent or attachment independent conditions. The 1X liquid formulation contains L-glutamine and supports the production of recombinant proteins by cells infected with viral vectors such as the Baculovirus Expression Vector System (BEVS).

Growth of Cells in Insect-XPRESS™ Medium

Most insect cell lines do not require weaning from serum-containing or serum-free media into Insect-XPRESS™ Medium.

If adaptation is required, we recommend an initial split ratio of 1:2 into Insect-XPRESS™ Medium followed by sequential splits of 1:5 until the culture is adapted to the new medium. During the weaning process, the cell concentration should be maintained above 3.0 x 10^5 cells/ml.

The recommended growth method for most insect cells in Insect-XPRESS™ Medium is shake-flask culture. A stock of cells may be maintained at a density between 1.0 X 10^5 and 5.0 x 10^6 cells/ml in a 125 ml sterile disposable Erlenmeyer flask containing 10 ml of medium. The flask should be capped tightly, placed on a rotary platform shaker and agitated at 100-200 rpm. The temperature of the culture should be maintained between 25℃ and 30℃.

Cells may also be maintained in monolayer culture using Insect-XPRESS™ Medium. The recommended surface area to volume ratio is 5 ml medium/25 cm^2 flask. This ratio allows the cells to proliferate to maximum density without exhibiting oxygen limitation.

The cells may be removed from the flask surface by striking the flask against the palm of the hand. Additionally, the cells may be removed from the flask by removing the culture supernatant and adding an equal volume of Hank‘s balanced salt solution without calcium, magnesium, or phenol red (Cat. No. 10-547).

Incubate the cells for 1-2 minutes at room temperature and dislodge as described above. Insect-XPRESS™ Medium does not contain a trypsin inhibitor.

If trypsin is utilized to release the cells from the flask surface, we recommend that the cells be immediately sedimented by centrifugation and resuspended in fresh Insect-XPRESS™ Medium.

Insect-XPRESS™ Medium may be used as a base for the cryopreservation of insect cells. We recommend that the Insect-XPRESS™ Medium liquid be mixed 50:50 with Cryoprotective Medium (Cat. No. 12-132) prior to cryopreservation.

Storage

2℃ - 8℃

Ordering Information

Cat. No.	Description	Size
12-730F	Insect-XPRESS™ Protein-free Insect Cell Medium with L-glutamine	500 ml
17-730Q	Insect-XPRESS™ Protein-free Insect Cell Medium with L-glutamine	1 L

Product Use Statement

THESE PRODUCTS ARE FOR RESEARCH USE ONLY. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* procedures.