

Insect-XPRESS™ Medium

Protein-free insect cell medium

Instructions for use

Contents:

Section	Description	Page
I	Introduction	1
II	Instructions for use	1
III	Storage	2
IV	Ordering information	2

I. Introduction

Insect-XPRESS™ Medium liquid 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 medium (all components are less than or equal to 10,000 mw.). Cell densities in excess of 8.3×10^6 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.

For answers to frequently asked questions and citations regarding these products, please visit our knowledge center: <https://knowledge.lonza.com>

II. 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).

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 3.0×10^5 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 1.0×10^5 and 5.0×10^6 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 at 25–30°C.

Cells may also be maintained in monolayer culture using Insect-XPRESS™ Medium. The recommended surface area to volume ratio is 5 mL medium/25 cm² 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 (catalog # 08-003A).

NOTE: It is common for this product to contain precipitate. Internal testing shows no negative impact on product function or use.

III. Storage

Insect-XPRESS™ Medium should be stored at 2 - 8°C.

IV Ordering information

Cat. no.	Product	Size
12-730Q	Insect-XPRESS™ Protein-free Insect Cell Medium with L-glutamine	1 L

Related products (sold separately)

Cat. No.	Product	Size
08-003A	Hank's Balanced Salt Solution	4 L bag
BEBP12-769E	TheraPEAK® ProFreeze® Medium, CD (2x)	100 mL bottle

Product use statements

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