



Insect Profree

Serum free (protein free) Insect cell medium

Product	Cat#	Package size
Insect Profree - serum free (protein free) Insect cell medium	C4338.0100	100mL
Insect Profree - serum free (protein free) Insect cell medium	C4338.0500	500mL
Insect Profree - serum free (protein free) Insect cell medium	C4338.1000	1000mL

Product description

The Genaxxon bioscience Insect Profree is a protein-free insect cell culture medium for optimized growth of insect cells as Sf9 or Sf21 (*Spodoptera frugiperda*) in suspension culture. As insect cells are often used for industrial applications of recombinant proteins it is very important to offer a protein free medium consisting of defined ingredients.

Composition

Insect Profree contains amino acids, vitamins, salts, trace elements, lipids and growth promoting factors in a formulation optimized for insect cells. It contains no protein or any other components of human or animal origin, only traces of animal-derived components (<0.2 % w/v) and hydrolysates (<0.7 % w/v).

Advantages of Insect Profree

Insect Profree is suitable for the cultivation of insect cells and the production of recombinant proteins (Baculovirus expression vector system, BEVS).

Insect Profree as a human and animal components free medium allows the production of recombinant proteins for medical and therapeutic purposes. The protein-free formulation also facilitates an easier and more economic purification of final products from the cell culture.

Insect Profree guarantees very high cell densities with an increased production of recombinant proteins.

Applications

- Recombinant protein production in insect cells (e.g., for protein crystallography)
- Malaria research

Product Specifications

Amino acids:	Yes
Vitamins:	Yes
Salts:	Yes
Micronutrients:	Yes
Lipids:	Yes
Extra addition of A:	Yes
Growth supporting extracts:	Yes
Proteins:	No
Serum:	No
Other human or animal ingredients:	No
Animal-derived components:	Less than 0.2% (w/v)
Hydrolysates:	Less than 0.7% (w/v)

Storage conditions

Storage temperature:	+2°C to +8°C (in the dark)
Shelf life:	1 year from date of production



Protocoll for Insect Profree subcultivation

Protocol for usage

Adaption to protein free culture:

- The optimal temperature range for most insect cell cultures is between 25°C and 30°C (incubation at 27°C +/-0.5°C).
- pH-value for cell cultures with Lepidoptera cells should be between pH6.0 and pH6.4.
- Osmolality for insect media should be between 345 and 380 mOsm/kg.
- For optimized oxygen supply, slightly unscrew/loosen the caps of the culture flasks/vessels or use filter screw caps.

Insect cells from serum containing cultures should be adapted to protein free culture first.

This can be done either by direct or sequential adaption.

Suspension cells should be harvested at their middle exponential growth phase with a viability of more than 90% (Trypan blue exclusion staining).

Direct adaption to Insect Profree medium

- Transfer cells from serum containing culture (e.g., TNM-FH (FCS, 5%-10%) directly to pre-warmed (27°C) protein free medium Insect Profree medium with a cell density of 5x10E5 cells/mL.
- Subcultivate cells in fresh Insect Profree medium as soon as cell density reach >2x10E6 cells/mL (after 4-7 days) to a cell density of 5x10E5 cells/mL.
- Subcultivate further till viability of at least 80% is obtained.

Indirect adaption to Insect Profree medium

- Cells from serum containing culture have to be transferred to a new medium consisting of 1:1 of the original medium and the Genaxxon Insect Profree medium. Seeding density: 5x10E5 cells/mL.
- Subcultivate cells as soon as cell density reach >1x10E6 cells/mL with fresh Insect Profree in a 1:1 ratio.
- Repeat subcultivation step until serum content is below 0.1% and cell viability stays at >80%. The cell number should exceed 1x10E6 cells/mL.