



## Sf9 Cells

### Product Information

Cat. No. : 600100  
Volume : 1 ml  
Quantity :  $1 \times 10^7$  cells/ml

#### Description

Sf9 cells are a clonal isolate from *Spodoptera frugiperda* (Fall Armyworm) IPLB-Sf21-AE cells. The Sf9 cells are adapted to serum-free suspension culture in *baculoGROW* media. The cells can be used for transient or stable expression of recombinant proteins, as a monolayer for transfection and production of recombinant baculovirus or for the propagation of baculovirus stocks. The Sf9 cells can be cultured as monolayer cultures in T-flasks and or in suspension cultures in shake flasks. The cells are prepared from low-passage cells (<30 passages in *baculoGROW*). Frozen cells can be thawed and used directly in suspension culture or as a monolayer culture.

#### Shipping and Storage

Cells are shipped on dry ice and are supplied in a cryogenic vial containing  $1 \times 10^7$  cells. Cells were frozen in a freezing medium composed of 50% fresh serum free medium, 50% conditioned serum free medium and Dimethyl Sulfoxide (DMSO) to a final concentration of 10%. Store cells in liquid nitrogen (vapour phase)

#### Caution

DMSO is a hazardous material and caution has to be taken when handling this substance.

#### General Media Requirements

The cells can be grown in most standard media (such as *baculoGROW* from OET).

#### Performance Testing

Each lot is tested for growth and viability post recovery from cryopreservation. The Master Seed Bank has been tested for sterility and mycoplasma.

### Establishing a new culture from the frozen ampoule

On receipt it is essential that the ampoule of frozen cells is either transferred to liquid nitrogen for storage or thawed to initiate a live cell culture. You must use aseptic technique through-out and work in a Class II Safety Hood or Tissue Culture Laminar Flow Hood. Rinse or mist the vial of cells with 70% alcohol before opening.

Required:

- Ampoule of Sf9 cells provided
- *baculoGROW* Insect cell growth medium
- 125 ml cell culture shake flask (back up T25/T75 monolayer flasks)
- 1ml and 10 ml sterile pipettes
- Incubator at 27-28°C and a shaking platform (130-140 rpm)
- Water bath at ~37°C (best to use a 'temporary bath' such as a clean beaker with warm clean water rather than a dirty water bath)

Protocol:

1. On receipt, using aseptic technique, defrost the cells rapidly in a water bath at 37°C until just thawed.
2. Rinse or mist the outside of the vial with 70% alcohol and then transfer the contents of the ampoule into a 125 ml sterile shake flask containing 25 ml fresh culture medium (*baculoGROW*). Shake the cells at 130- 140 rpm at 27-28°C for 1-2 days. *As a back-up, it is recommended to transfer 5 ml of the cells from the shake flask to a T25 monolayer flask and continue to passage.*
3. Sample the cells and determine the cell density and viability
4. When the cells have reached  $2 \times 10^6$  cells/ml, they can be passaged into a fresh 30-50 ml culture (in a 100-250 ml flask) by simply diluting a portion of the culture with fresh growth medium to give a cell density of  $0.3 - 0.5 \times 10^6$ . Continue to passage cells. We recommend that Sf9 cells are maintained in simple shake cultures, however, they will also grow in monolayer cultures.
5. Cells can be used to prepare recombinant viruses as soon as they have recovered from shipping and are doubling approximately every 24 hours with a high viability (90% or more). **This may take 2-3 passages of cells.**  
*It is important that cells are not used to make recombinant viruses until they are growing well in a log phase culture.*

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