Product Usage

Product: **SFIM60 (Serum Free Insect Media)**
Solution
Catalog #: 900-630

Product Description
SFIM60 is a serum-free medium designed and optimized for the culture of Lepidopteran spp. insect cells. (Class, Insecta; Order, Lepidoptera; Family Noctuidae). The medium supports the growth and maintenance of both anchorage-dependent and suspension cultures of Sf-9 cells derived from the pupal ovarian tissue of the Fall Armyworm, Spodoptera frugiperda (J.E.Smith). The Sf-9 cell line is commonly used to isolate and propagate recombinant Baculoviral stocks and for the production of recombinant proteins. SFIM60is also a proteinfree medium that provides excellent results in comparison to such media as TNM-FH (Supplemented Grace's) in which 10% Fetal Bovine Serum is added. Last but not least, SFIM60 has shown excellent performance in the cultivation of high-V cells (i.e. Trichoplusia ni embryo cells) and the production of recombinant betagalactosidase.

Shelf life and Storage
SFIM60 should be stored under defined conditions between 2-8°C. The product should not be left in the light for prolonged periods as it is light-sensitive. When stored in the dark under ideal conditions, the product is stable until the expiry date on the label.

Instructions for use
1) Take a bottle from the proper storage conditions between 2-8°C.
2) Allow to warm to room temperature prior to use.
3) Ensure that the cap of the bottle is tight.
4) Gently swirl the solution in the bottle.
5) Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
6) Using aseptic/sterile technique under a laminar-flow culture hood, work according to established protocols.

Serum-Supplemented Cultures:
Insect cells are incubated at 27-28ºC in an open environment. SF-9 cells are usually cultured in Grace's medium supplemented with TPB and yeastolate (TNM-FH medium) plus 10% heat-inactivated FBS. Cells may also be cultured in IPL-41 medium containing 10% heat-inactivated FBS. A stationary culture will reach confluency in 3-6 days.

The cells are loosely attached to the substrate, and when the cells are subcultured, it is necessary to scrape the cells gently to remove them. To initiate a suspension culture, inoculate 3-5 x 105 cells/ml from the stationary culture in a 250ml shaker flask, containing 100ml of complete medium. Subculture the cells to 3-5 x 105 cells/ml twice weekly. The shaker should be maintained at 27-28ºC. The caps of the flasks should be loosened for aeration.

Serum-Free Cultures:
Either weaning or direct adaption may be used for transferring cells from serum-containing media to SFIM60 Serum-Free Medium. We recommend using the weaning procedure for monolayer, as well as for suspension culture.

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Weaning Procedure:
1. Transfer cells in the logarithmic phase from the serum-containing medium into 50% (v/v) mixture of serum-supplemented medium and SFIM60.
2. Subculture the cells after 3 days and reduce the percentage of the serum-supplemented medium to 40%.
3. Continue with the subculturing of the cells every 3 days and with each passage reduce the concentration of the serum-supplemented medium by a further 10%.
4. On the sixth passage, the cells will be fully adapted to SFIM60serum-free medium.

Maintenance of SF-9 cells in SFIM60 serum-free medium:

	Stationary culture	***Suspension culture***
Inoculation density	6-10 x 104 cells/cm2	1.5 x 106 cells/ml
	2-3 times/week	Every 3-4 days
Subculture	Subculture the cells when the viable cell count reaches 40-50 x 104/cm2, with greater than 90% viability	Subculture the cells when the viable cell count reaches 3-5 x 106/ml, with greater than 95% viability. After 5 days in culture, the cell density reaches 6-8 106 cells/ml.

For *in vitro* laboratory use or further manufacturing only. Not for human use.