

**Product Name**

Name: Schneider's Drosophila Medium, with L-Glutamine

Cat. No.: C3160-0500

Size: 500 mL

**Product Description**

Many types of insect culture media have been formulated to imitate or mimic the diverse biochemical properties characteristic of insect hemolymph for the study of different biological processes. It should be obvious that diverse formulas have been developed or rather designed to endeavor to meet the individual, unique niche requirements but nevertheless, most often differ both quantitatively and qualitatively in terms of constituents.

The application of insect cell culture for heterologous protein expression has progressively increased over the last several decades. An important factor underscoring this popularity of insect cell expression is the innate ability of insect cells to produce relatively large quantities of post-translationally modified eukaryotic proteins in a relatively short period of time. Aside from recombinant protein expression, *Drosophila spp. cells* have also been used in cellular and developmental biology, molecular biology, endocrinology, genetics, and insect physiology among other disciplines.

Schneider's Drosophila Medium, with L-Glutamine is a medium designed and optimized for the support of rapid growth of both primary and established cultures of cells derived from *Drosophila melanogaster* known colloquially as the fruit, banana, pomace, vinegar, and wine fly to name a few. This medium has also been utilized for the growth and maintenance of cell lines originally derived by Schneider from the embryos of *Drosophila spp.* in addition to the cell culture of other Dipteran species.

*Drosophila melanogaster* is probably the most familiar and well-known insect in the world of genetic research and is a key model that has greatly contributed to the advance of genetics, behavior, aging, developmental biology, and evolution. It is, also outside of academic circles, one of the most unappreciative and unaccredited key players in some of the twentieth century's greatest biological discoveries.

The billions of diminutive and minute fruit flies that were bred and literally, the hundreds of thousands of published scientific papers illustrating practically every aspect of their unique lives is a testament to their enduring and widespread legacy. Such a small insect has offered the scientific community an enormous window into our biological world and helped define the boundaries of not only our present biological knowledge but also offers us a glimpse of what awaits us in the uncharted recesses of our imagination. With its four pairs of chromosomes and a new generation every twelve days, it is no wonder and a fact that almost every discovery in the field of Modern Genetics from Gene Therapy to Cloning to the Human Genome Project is built on the foundations of the early 20th Century fruit-fly research. Literally, with a wild fruit-fly population, the process of evolution is fixed in a matter of months not eons in a space-time continuum.

The selection of a specific and complex nutrient-enriched medium such as Schneider's Drosophila Medium with L-Glutamine typically is based on the requirements of the insect cells for cell growth and maintenance and is based as well upon several major fundamental characteristics:

- Cell Type
- Type of Cell Culture Environment (e.g., clonal, monolayer, or suspension)
- Uniquely Defined Individual Niche Requirements

Schneider's Drosophila Medium with L-Glutamine also contains constituents that include a typical and wide variety of, among others:

- Amino Acids
- Glucose
- Inorganic Salts
- Vitamins
- Trace Elements

### Predominant Characteristics

- Ready-To-Use-Formulation
- With L-Glutamine
- With Sodium Bicarbonate
- More Precise Evaluation of Cell Function
- Improves Cell Adaptation Time
- Promotes Cell Performance and Productivity
- More Uniform & Consistent Media Performance
- Sterile-Filtered (0.1 µm)

### Storage and Stability

The product should be kept at **2 - 8°C**.

The product is **light-sensitive** and therefore should not be left in the light.

Shelf life: 12 months from date of manufacture

### Procedure

1. Take a bottle from the storage at 2 - 8°C and read the label.
2. Ensure that the cap of the bottle is tight.
3. Allow to equilibrate to room temperature prior to use.
4. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
5. Use the medium according to established protocols, using an aseptic/sterile technique under a laminar-flow culture hood.

### Quality Control

Schneider's Drosophila Medium, with L-Glutamine is tested for sterility, pH, osmolality.

### Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.