

**Product Name**

Name: DMEM, High Glucose, with Sodium Pyruvate, with L-Glutamine, **SLE Grade**

Cat. No.: C3114-0500

Size: 500 mL

**Product Description**

DMEM, High Glucose, with Sodium Pyruvate, with L-Glutamine is one of the most widely used modifications of Eagle's medium. DMEM is a modification of Basal Medium Eagle (BME) that contains a four-fold higher concentration of amino acids and vitamins. Additionally, the formulation also includes glycine, serine, and ferric nitrate. The original formulation contains 1000 mg glucose per liter and was originally used to culture embryonic mouse cells.

DMEM high glucose is a further modification of the original DMEM and contains 4500 mg glucose per liter. The additional glucose has proved to be useful in culturing various other cell lines including primary cultures of mouse and chicken cells as well as various normal and transformed cell lines.

DMEM, High Glucose, with Sodium Pyruvate, with L-Glutamine is produced to reach the **super-low endotoxin (SLE) grade**, with the endotoxin level  $\leq 0.01$  EU/mL as measured by the Limulus amoebocyte lysate (LAL) method. The production process and quality management system meet the requirements of cGMP and have passed the ISO 13485 certification.

It does not contain trace elements. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific to different cell lines.

**Composition**

| Ingredients                           | mg/L    | Ingredients                           | mg/L     |
|---------------------------------------|---------|---------------------------------------|----------|
| <b>INORGANIC SALTS</b>                |         |                                       |          |
| Calcium chloride dihydrate            | 265.000 | Potassium chloride                    | 400.000  |
| Ferric nitrate nonahydrate            | 0.100   | Sodium chloride                       | 6400.000 |
| Magnesium sulphate anhydrous          | 97.720  | Sodium dihydrogen phosphate anhydrous | 109.000  |
| <b>AMINO ACIDS</b>                    |         |                                       |          |
| Glycine                               | 30.000  | L-Methionine                          | 30.000   |
| L-Arginine hydrochloride              | 84.000  | L-Phenylalanine                       | 66.000   |
| L-Cystine dihydrochloride             | 62.570  | L-Serine                              | 42.000   |
| L-Glutamine                           | 584.000 | L-Threonine                           | 95.000   |
| L-Histidine hydrochloride monohydrate | 42.000  | L-Tryptophan                          | 16.000   |
| L-Isoleucine                          | 105.000 | L-Tyrosine Disodium Salt              | 103.790  |
| L-Leucine                             | 105.000 | L-Valine                              | 94.000   |

|                        |          |                         |          |
|------------------------|----------|-------------------------|----------|
| L-Lysine hydrochloride | 146.000  |                         |          |
| <b>Vitamins</b>        |          |                         |          |
| Choline chloride       | 4.000    | Pyridoxal hydrochloride | 4.000    |
| D-Ca-Pantothenate      | 4.000    | Riboflavin              | 0.400    |
| Folic acid             | 4.000    | Thiamine hydrochloride  | 4.000    |
| Nicotinamide           | 4.000    | i-Inositol              | 7.200    |
| <b>OTHERS</b>          |          |                         |          |
| D-Glucose              | 4500.000 | Sodium pyruvate         | 110.000  |
| Phenol red Sodium Salt | 15.900   | Sodium bicarbonate      | 3700.000 |

### 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 of the medium from the refrigerator at 2 - 8°C and read the label.
2. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
3. Pipette out the appropriate volume using an aseptic/sterile technique under a laminar-flow culture hood.
4. Add antibiotics or other nutrients if desired.

### Quality Control

DMEM, High Glucose, with Sodium Pyruvate, with L-Glutamine is tested for sterility, pH, osmolality, and endotoxin concentration. In addition, each batch is tested for cell growth performance.

### Precaution and Disclaimer

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