

Product Name

Name: DMEM, High Glucose, with Sodium Pyruvate, with L-Alanyl-L-Glutamine

Cat. No.: C3103-0500

Size: 500 mL

Product Description

DMEM, High Glucose, without Sodium Pyruvate 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 1,000 mg glucose per liter and was originally used to culture embryonic mouse cells. **Advantages of using L-Alanyl-L-Glutamine:** L-Alanyl-L-Glutamine is much more stable than L-glutamine, releases less ammonia in culture, and improves cell viability and growth.

DMEM high glucose is a further modification of the original DMEM and contains 4,500 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.

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
INORGANIC SALTS			
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
AMINO ACIDS			
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-Alanyl-L-Glutamine	868.050	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		
Vitamins			
Choline chloride	4.000	Pyridoxal hydrochloride	4.000

PI-C3103 V1.0

D-Ca-Pantothenate	4.000	Riboflavin	0.400
Folic acid	4.000	Thiamine hydrochloride	4.000
Nicotinamide	4.000	i-Inositol	7.200
OTHERS			
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 the 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, fetal bovine serum, or other nutrients if desired.

Quality Control

DMEM, High Glucose, without Sodium Pyruvate, with L-Alanyl-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.