

Product Name

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

Cat. No.: C3121-0500

Size: 500 mL

Product Description

DMEM, Low 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.

The culture medium has been supplemented L-Alanyl-L-Glutamine in place of L-Glutamine.

Compared with Glutamine, L-Alanyl-L-Glutamine is much more stable than L-Glutamine, releases less ammonia in culture, and improves cell viability and growth.

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.

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

INORGANIC SALTS

Calcium chloride dihydrate	265.000
Ferric nitrate nonahydrate	0.100
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000

Sodium chloride 6400.000

Sodium dihydrogen phosphate anhydrous 109.000

AMINO ACIDS

Glycine 30.000

L-Arginine hydrochloride 84.000

L-Cystine dihydrochloride 62.570

L-Alanyl-L-Glutamine 867.824

L-Histidine hydrochloride monohydrate 42.000

L-Isoleucine 105.000

L-Leucine 105.000

L-Lysine hydrochloride 146.000

L-Methionine 30.000

L-Phenylalanine 66.000

L-Serine 42.000

L-Threonine 95.000

L-Tryptophan 16.000

L-Tyrosine disodium salt 103.790

L-Valine 94.000

Vitamins

Choline chloride 4.000

D-Ca-Pantothenate 4.000



Folic acid	4.000
Nicotinamide	4.000
Pyridoxal hydrochloride	4.000
Riboflavin	0.400
Thiamine hydrochloride	4.000
i-Inositol	7.200

OTHERS

D-Glucose	1000.000
Phenol red Sodium Salt	15.900
Sodium pyruvate	110.000
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 from the defined storage

conditions 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 the appropriate volume of the product using an aseptic/sterile technique under a laminar-flow culture hood.
4. Add antibiotics or other nutrients if desired.

Quality Control

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

Manufacturer

Shanghai XP Biomed Ltd.

Issue Date

March 2nd 2026

Precaution and Disclaimer

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

