

DMEM High Glucose (4.5 g/l) powder medium, with L-Glutamine, with Sodium Pyruvate, w/o Sodium Bicarbonate

General information

Dulbecco's Modified Eagle Medium (DMEM) High Glucose is a widely used cell culture medium that provides support for the proliferation of a diverse range of cell types. Its availability in different formulations makes it suitable for various applications.

Product specifications

Appearance	Off-white to creamy white, homogenous powder
Solubility	Clear solution at 13.5 g/l
pH w/o Sodium Bicarbonate	5.90 – 6.50
pH with Sodium Bicarbonate	7.40 – 8.00
Osmolality w/o Sodium Bicarbonate	250 – 290 mOsm/kg
Osmolality with Sodium Bicarbonate	330 – 370 mOsm/kg
Endotoxin	< 1 EU/ml
Cell Culture	Tested
Storage	+2 °C to +8 °C, dry and protected from light
Use at	13.5 g/l
Add	3.7 g/l Sodium Bicarbonate
CO₂ concentration optimum for liquid medium	8.5 %

Instructions for use

Preparation of 1 liter liquid medium:

1. Suspend 13.5 g in 900 ml tissue culture grade water with constant, gentle stirring until the powder is completely dissolved. Do not heat the water.
2. Add 3.7 g of sodium bicarbonate powder or 49.3 ml of 7.5 % sodium bicarbonate solution for 1 liter of medium and stir until dissolved.
3. Adjust the pH to 0.2 to 0.3 pH units below the desired pH using 1 N HCl or 1 N NaOH since the pH tends to rise during filtration.
4. Make up the final volume to 1000 ml with tissue culture grade water.
5. Sterilize the medium immediately by filtering through a sterile membrane filter with porosity of 0.22 micron or less, using positive pressure rather than vacuum to minimize the loss of carbon dioxide.
6. Aseptically add sterile supplements as required and dispense the desired amount of sterile medium into sterile containers.
7. Store liquid medium at +2 °C to +8 °C and in dark until use.

Formulation

Amino Acids

L-Arginine x HCl	84.00
L-Cystine x 2 HCl	62.57
L-Glutamine	584.00
Glycine	30.00
L-Histidine x HCl x H ₂ O	42.00
L-Hydroxy-L-Proline	20.00
L-Isoleucine	105.00
L-Leucine	105.00
L-Lysine x HCl	146.00
L-Methionine	30.00
L-Phenylalanine	66.00
L-Proline	20.00
L-Serine	42.00
L-Threonine	95.00
L-Tryptophan	16.00
L-Tyrosine x 2 Na	103.79
L-Valine	94.00

Vitamins

Choline Chloride	4.00
D-Calcium Pantothenate	4.00
Folic Acid	4.00
myo-Inositol	7.20
Nicotinamide	4.00
Pyridoxal x HCl	4.00
Riboflavin	0.40
Thiamine x HCl	4.00

Inorganic Salts

Calcium Chloride x 2 H ₂ O	265.00
Ferric Nitrate x 9 H ₂ O	0.10
Magnesium Sulfate Anhydrous	97.72
Potassium Chloride	400.00
Sodium Chloride	6400.00
Sodium Dihydrogen Phosphate Anhydrous	109.00

Other Components

D-Glucose	4500.00
Phenol Red Sodium Salt	15.90
Sodium Pyruvate	110.00

Precautions and disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Ordering information

Catalogue number	Pack size
LTPM-L03	10 L
LTPM-L04	50 L

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