

1. Identification

Product name	Dulbecco's Modified Eagle Medium (DMEM) w/ L-Glutamine, Sodium bicarbonate and Sodium pyruvate w/o Glucose
Catalog.no	CCML004

2. Description

Dulbecco's Modified Eagle Medium (DMEM) is a widely used cell culture medium derived from the modification of Eagle's Basal Medium (BME), containing higher concentrations of amino acids, vitamins, and additional components, making it suitable for the growth of a variety of mammalian cells in vitro.

DMEM is commonly used as a basal medium for the routine maintenance and propagation of various adherent and suspension cell lines, including primary cells, established cell lines, and stem cells. Its balanced composition provides essential nutrients and support for cell growth, proliferation, and viability.

DMEM is also used in Transfection and Gene Expression experiments, Drug Screening and Toxicity Studies and maintenance of various types of stem cells, including embryonic stem cells (ESCs), induced pluripotent stem cells (iPSCs), and adult stem cells. The medium supports the self-renewal and differentiation of stem cells into specialized cell lineages for regenerative medicine and tissue engineering applications.

3. Product Specifications

Appearance	Clear red orange solution
CO ₂ concentration, optimum	5.0 %
Storage and shelf life	Store at +2°C to +8°C protected from light. Once opened, store at 4°C and use within 6-8 weeks.
Shipping conditions	Ambient

DATA SHEET

Rev.ver: 01

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4. Formulation

Components	Concentration mg/L
Amino Acids:	
Glycine	30.00
L-Arginine HCl	84.00
L-Cystine 2HCl	63.00
L-Glutamine	584.00
L-Histidine HCl H ₂ O	42.00
L-Isoleucine	105.00
L-Leucine	105.00
L-Lysine HCl	146.00
L-Methionine	30.00
L-Phenylalanine	66.00
L-Serine	42.00
L-Threonine	95.00
L-Tryptophan	16.00
L-Tyrosine 2Na 2H ₂ O	103.79
L-Valine	94.00
Vitamins:	
Choline chloride	4.00
D-Calcium Pantothenate	4.00
Folic Acid	4.00

Components	Concentration mg/L
myo-Inositol	7.20
Nicotinamide	4.00
Pyridoxal HCl	4.00
Riboflavin	0.40
Thiamine HCl	4.00
Inorganic Salts	
Calcium chloride dihydrate	265.00
Magnesium sulphate anhydrous	97.72
Potassium chloride	400.00
Ferric nitrate nonahydrate	0.100
Sodium bicarbonate	3700.00
Sodium chloride	6400.00
Sodium dihydrogen phosphate anhydrous	109.00
Other Components:	
Phenol Red Sodium Salt	15.0
Sodium Pyruvate	110.00

5. 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.