

# Dulbecco's Modified Eagle Medium (DMEM)

*with High Glucose, L-Glutamine, and Sodium Pyruvate*

**Catalog Number:**

M22450

**Size:**

500 mL

## PRODUCT DESCRIPTION

Dulbecco's Modified Eagle's Medium (DMEM), a modification of Eagle's Basal Medium, is widely used for a range of mammalian cell culture applications. In comparison with Eagle's Basal Medium, it contains a four-fold higher concentration of amino acids, vitamins, and additional components. A variety of DMEM versions are available in high glucose and low glucose formulations. DMEM requires supplementation with serum, typically 10% Fetal Bovine Serum (FBS), since this medium does not contain proteins, lipids, or growth factors.

Each lot of DMEM is prepared from a powdered base medium and tissue culture-grade water. Representative samples of each lot of DMEM are tested to confirm the absence of bacterial or fungal contamination using methods adapted from the current U.S. Pharmacopeia. DMEM is manufactured in our ISO 9001:2015 certified facility.

For the specific media formulation, please refer to the Media Formulation section of the datasheet.

## STORAGE AND HANDLING

DMEM is supplied in gamma-irradiated, sterile PETG or PETE bottles. We recommend that DMEM be stored at a temperature of 2-8 °C, and protected from strong light. Always use aseptic techniques when handling and supplementing DMEM.

## PRECAUTION

When handling bio-hazardous materials such as human cells, safe laboratory procedures should be followed, and personal protective equipment should be worn.

## LIMITATIONS

- FOR LABORATORY RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
- The safety and efficacy of this product in diagnostic or other clinical uses has not been established.
- Results may vary due to variations among tissue/cells derived from different donors or sources.

# MEDIA FORMULATION

## INORGANIC SALTS mg/L

Calcium Chloride • 2H <sub>2</sub> O	246.92
Ferric Nitrate • 9H <sub>2</sub> O	0.10
Magnesium Sulfate (Anhydr.)	97.67
Potassium Chloride	400.00
Sodium Chloride	6400.00
Sodium Phosphate, Monobasic (Anhydr.)	108.69

## AMINO ACIDS mg/L

L-Arginine • HCl	84.00
L-Cystine • 2HCl	62.58
L-Glutamine	584.00
Glycine	30.00
L-Histidine • HCl • H <sub>2</sub> O	42.00
L-Isoleucine	104.80
L-Leucine	104.80
L-Lysine • HCl	146.20
L-Methionine	30.00
L-Phenylalanine	66.00
L-Serine	42.00
L-Threonine	95.20
L-Tryptophan	16.00
L-Tyrosine • Na <sub>2</sub> • 2H <sub>2</sub> O	103.79
L-Valine	93.60

## VITAMINS mg/L

Choline Chloride	4.00
Folic Acid	4.00
myo-Inositol	7.00
Nicotinamide	4.00
D-Pantothenic Acid, Hemicalcium Salt	4.00
Pyridoxal • HCl	4.00
Riboflavin	0.40
Thiamine • HCl	4.00

## OTHER COMPONENTS mg/L

D-Glucose	4500.00
Phenol Red • Na	15.34
Sodium Pyruvate	110.00
Sodium Bicarbonate	3700.00