

### Technical Information

#### Dulbecco's Modified Eagle Medium (DMEM)

With 4.5gms Glucose per litre and Sodium bicarbonate Without L-Glutamine and Sodium pyruvate 1X Liquid Cell Culture Medium

#### Product Code: AL1066

**Application:**—Dulbecco's Modified Eagle Medium (DMEM) is one of the most widely used modification of Eagle's medium. DMEM is a modification of Basal Medium Eagle (BME) that contains four fold concentration of amino acids and vitamins. Additionally, the formulation also includes glycine, serine and ferric nitrate. The original formulation contains 1000mgs/L of glucose and was originally used to culture embryonic mouse cells.

DMEM high glucose is a further modification of original DMEM and contains 4500mgs/L of glucose. The additional glucose has proved to be useful in cultivating various other cell lines including primary cultures of mouse and chicken cells as well as various normal and transformed cell lines.

AL1066 is DMEM with 4.5gms of glucose per litre and sodium bicarbonate. It does not contain L-glutamine and sodium pyruvate. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

#### Composition\*\*

Ingredients	mg/Litre
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	265.000
Ferric nitrate nonahydrate	0.100
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Sodium bicarbonate	3700.000
Sodium chloride	6400.000
Sodium dihydrogen phosphate anhydrous	109.000
<b>AMINO ACIDS</b>	
Glycine	30.000
L-Arginine hydrochloride	84.000
L-Cystinedihydrochloride	62.570
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
<b>VITAMINS</b>	
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
<b>OTHERS</b>	
D-Glucose	4500.000
Phenol red sodium salt	15.900

### Methodology

1. Add 20ml of 200mM L-glutamine (TCL1012) for 1 litre of medium.

### Material required but not provided

L-Glutamine solution 200mM (TCL1012)

### Quality control

#### Appearance

Orangish red colored, clear solution.

#### pH

7.00 -7.60

#### Osmolality in mOsm/Kg H<sub>2</sub>O

320.00 -360.00

#### Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

#### Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium through minimum three subcultures.

#### Endotoxin Content

NMT 5EU/ml

### Storage and Shelf Life

Store at 2-8°C away from bright light. Shelf life is 18 months. Use before expiry date given on the product label.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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