

Technical Information

Dulbecco's Modified Eagle Medium (DMEM)

Low glucose W/ 1gm Glucose per litre, Sodium bicarbonate and Sodium pyruvate, W/o L- Glutamine

Product Code:AL1006

Application:-Dulbecco's Modified Eagle Medium (DMEM) is one of the most widely used modifications 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.

AL1006 is Dulbecco's Modified Eagle Medium with 1gm per litre glucose, sodium bicarbonate and sodium pyruvate. It does not contain L-glutamine. 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
INORGANIC SALTS	
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
AMINO ACIDS	
Glycine	30.000
L-Arginine hydrochloride	84.000
L-Cystine dihydrochloride	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

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

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 H₂O

300.00 -340.00

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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