Dulbecco's Modified Eagle Medium (DMEM)

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

Product Code: AL007

Product Description:

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.

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.

AL007 is Dulbecco's Modified Eagle Medium with 4.5gms glucose per litre, sodium pyruvate and sodium bicarbonate. 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/L

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 4500.000
Phenol red sodium salt 16.000
Sodium pyruvate 110.000

Directions:

1. Add 20ml of 200mM L-glutamine (TCL012) for 1 litre of medium.

Material required but not provided:

L-Glutamine solution 200mM (TCL012)

Quality Control:

Appearance
Orangish red colored, clear solution.

pH
7.00 - 7.60

Osmolality in mOsm/Kg H2O
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.

Revision : 1 / 2011

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