

Technical Information

Dulbecco's Modified Eagle Medium (DMEM) High Glucose With 4.5gms Glucose per litre, Sodium pyruvate, D-Valine and Sodium bicarbonate Without L-Glutamine and L-Valine

Product Code: AL1251

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 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.

AL251 is Dulbecco's Modified Eagle Medium with 4.5gms glucose per litre, sodium pyruvate, D-Valine and sodium bicarbonate. It does not contain L- glutamine and L-Valine. 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	3700.00
Sodium chloride	6400.00
Sodium dihydrogen phosphate anhydrous	109.00
AMINO ACIDS	
Glycine	30.000
L-Arginine hydrochloride	84.000
L-Cystine dihydrochloride	62.570
L-Histidine hydrochloride monohydrate	42.000
L-Isoleucine	105.00
L-Leucine	105.00
L-Lysine hydrochloride	146.200
L-Methionine	30.000
L-Phenylalanine	66.000
L-Serine	42.000
L-Threonine	95.200
L-Tryptophan	16.000
L-Tyrosine sodium 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	110.00

Methodology

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 :

Red coloured 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 .

Endotoxin Content:

NMT 1EU/ml

Storage and Shelf Life

Store at 2-8°C away from bright light. Shelf life is 12 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.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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