

DULBECCO'S MODIFIED EAGLE'S MEDIUM (DMEM)

DMEM with 4,500 mg D-glucose/L

Catalog # 36250 500 mL per bottle

Selection of suitable nutrient medium is dependent on type of cell, conditions of culture, and degree of chemical definition required for the cell culture application. This product has been pre-screened for use with other reagents of the ES-Cult™ product line for optimal performance for the *in vitro* hematopoietic differentiation of murine embryonic stem (ES) cells.

PRODUCT DESCRIPTION:

This product contains L-glutamine and is supplemented with Sodium Bicarbonate and Sodium Pyruvate.

This product **does not** contain Antibiotics.

pH 7.2 - 7.6

Formulation is listed on reverse side.

STABILITY / STORAGE:

Store at 2 - 8°C.

Stable for one year from date of manufacture (refer to: Directions for use).

Contents guaranteed sterile if seal is not tampered with.

DIRECTIONS FOR USE:

This product contains the labile amino acid L-glutamine which has a half-life of approximately one month when stored at 2 - 8°C. For certain cell culture applications, medium stored for greater than two months following date of manufacture should be supplemented with additional L-glutamine. Add 5 mL of 200mM

L-glutamine (Cat# 07100) to 500 mL to achieve a final concentration of 2 mM.

If desired, add 5 mL of Penicillin and Streptomycin Solution (Cat# 07500) to each 500 mL bottle of this product to achieve a final concentration of 100 U/mL Penicillin and 100 µg/mL of Streptomycin.

Following addition of antibiotics, medium should be used within one week.

**THIS REAGENT IS FOR LABORATORY USE ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.**

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COMPONENT	36250 g/L
INORGANIC SALTS	
Calcium Chloride $\times 2H_2O$	0.265
Ferric Nitrate $\times 9H_2O$	0.0001
Magnesium Sulfate	0.09767
Potassium Chloride	0.4
Sodium Chloride	6.4
Sodium Phosphate Monobasic	0.109
AMINO ACIDS	
L-Arginine $\times HCl$	0.084
L-Cystine $\times 2HCl$	0.0626
L-Glutamine	0.584
Glycine	0.03
L-Histidine $\times HCl \times H_2O$	0.042
L-Isoleucine	0.105
L-Leucine	0.105
L-Lysine $\times HCl$	0.146
L-Methionine	0.03
L-Phenylalanine	0.066
L-Serine	0.042
L-Threonine	0.095
L-Tryptophan	0.016
L-Tyrosine $2Na \times 2H_2O$	0.10379
L-Valine	0.094
VITAMINS	
Choline Chloride	0.004
Folic Acid	0.004
myo-Inositol	0.0072
Niacinamide	0.004
D-Pantothenic Acid (hemicalcium)	0.004
Pyridoxal $\times HCl$	0.004
Riboflavin	0.0004
Thiamine $\times HCl$	0.004
OTHER	
D-Glucose	4.5
Phenol Red $\times Na$	0.0159
Pyruvic Acid $\times Na$	0.11
Sodium Bicarbonate	3.7