

Catalog Number: 1033122

Dulbecco's Modification of Eagle's Medium (DMEM), powder, with 4500 mg/L dextrose, L-glutamine, without sodium bicarbonate

Description: Also known as DME, Dulbecco's Modified Eagle's Medium is the most widely used modification of Eagle's Basal Medium (BME). DMEM contains four times greater concentration of amino acids, vitamins and supplementary components. The original formulation calls for 1000 mg/L of glucose, which was first employed to support the polyoma virus in primary and secondary embryonic mouse cultures. For optimal culturing of other cell types, a modification of 4500 mg/L glucose is available from MP. Storage Temperature 2-8°C.

Formulation:

<i>Components</i>	<i>mg/l</i>	<i>Mol. Wt.</i>	<i>Mol. (mM)</i>
Amino Acids			
L-Arginine HCl	84.00	210.7	0.40
L-Cystine 2HCl	62.57	313.2	0.20
L-Glutamine	584.00	146.1	4.00
Glycine	30.00	75.07	0.40
L-Histidine HCl H ₂ O	42.00	209.6	0.20
L-Isoleucine	104.80	131.2	0.80
L-Leucine	104.80	131.2	0.80
L-Lysine HCl	146.20	182.6	0.80
L-Methionine	30.00	149.2	0.20
L-Phenylalanine	66.00	165.2	0.40
L-Serine	42.00	105.1	0.40
L-Threonine	95.20	119.1	0.80
L-Tryptophan	16.00	204.2	0.08
L-Tyrosine 2Na 2H ₂ O	103.79	261.2	0.40
L-Valine	94.00	117.1	0.80

Vitamins			
Choline Chloride	4.00	139.6	0.03
D-Calcium Pantothenate	4.00	238.3	0.02
Folic Acid	4.00	441.4	0.01
myo-Inositol	7.20	180.2	0.04
Nicotinamide	4.00	122.13	0.03
Pyridoxine HCl	4.00	205.6	0.02
Riboflavin	0.40	376.4	0.0011
Thiamine HCl	4.00	337.3	0.01
Inorganic Salts			
Calcium Chloride [CaCl ₂]	200.00	111	1.80
Ferric Nitrate [Fe(NO ₃) ₃ 9H ₂ O] Nonahydrate	0.10	404	0.0002
Magnesium Sulfate [MgSO ₄]	97.70	120.4	0.81
Potassium Chloride [KCl]	400.00	74.55	5.37
Sodium Chloride [NaCl]	6400.00	58.44	109.51
Sodium Phosphate Monobasic [NaH ₂ PO ₄ H ₂ O] Monohydrate	125.00	137.99	0.905
Other			
Dextrose	4500.00	180.2	24.97
Phenol Red Sodium Salt	15.00	376.4	0.04
Sodium Pyruvate	110.00	110	1.00
Add			
NaHCO ₃ Powder (g/L)		3.700	
NaHCO ₃ 7.5% Solution (mL/L)		49.440	

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