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TECHNICAL INFORMATION

Catalog Number: 1234349, 1234354

Dulbecco's Modification of Eagle's Medium (1X Solution) with 1 g/L Dextrose, L-glutamine

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:

Components	mg/L	Mol. Wt.	Mol. (mM)
Amino Acids			
L-Arginine HCl	84.00000	210.7	0.40
L-Cystine	48.00000	240.3	0.20
L-Glutamine	584.00000	146.1	4.00
Glycine	30.00000	75.07	0.40
L-Histidine HCl H ₂ O	42.00000	209.6	0.20
L-Isoleucine	104.80000	131.2	0.80
L-Leucine	104.80000	131.2	0.80
L-Lysine HCl	146.20000	182.6	0.80
L-Methionine	30.00000	149.2	0.20
L-Phenylalanine	66.00000	165.2	0.40
L-Serine	42.00000	105.1	0.40
L-Threonine	95.20000	119.1	0.80
L-Tryptophan	16.00000	204.2	0.08
L-Tyrosine	72.00000	181.2	0.40
L-Valine	93.60000	117.1	0.80
Vitamins			
Choline Chloride	4.00000	139.6	0.03
D-Calcium Pantothenate	4.00000	238.3	0.02
Folic Acid	4.00000	441.4	0.01

myo-Inositol	7.00000	180.2	0.04
Nicotinamide	4.00000	122.13	0.03
Pyridoxal HCl	4.00000	203.6	0.02
Riboflavin	0.40000	376.4	0.0011
Thiamine HCl	4.00000	337.3	0.01
Inorganic Salts			
Calcium Chloride [CaCl ₂ 2H ₂ O] Dihydrate	246.90000	147	1.68
Ferric Nitrate [Fe(NO ₃) ₃ 9H ₂ O] Nonahydrate	0.10000	404	0.0002
Magnesium Sulfate [MgSO ₄]	97.70000	120.4	0.81
Potassium Chloride [KCl]	400.00000	74.55	5.37
Sodium Bicarbonate [NaHCO ₃]	3700.00000	84.01	44.04
Sodium Chloride [NaCl]	6400.00000	58.44	109.51
Sodium Phosphate Monobasic [NaH ₂ PO ₄ H ₂ O] Monohydrate	125.00000	137.99	0.905
Other			
Dextrose	1000.00000	180.2	5.55
Phenol Red Sodium Salt	15.00000	376.4	0.04
Sodium Pyruvate	110.00000	110	1.00

Availability:

1X Liquid:

Dulbecco's Modification of Eagle's Medium (DMEM):

Catalog Number	Description	Size
1233249	1X DMEM with 4500 mg/l glucose, without L-glutamine	100 ml
1233254		500 ml
1233226		1 liter
1233354	1X DMEM with 4500 mg/l dextrose, L-glutamine	500 ml
1234354	1X DMEM with 1000 mg/l dextrose, L-glutamine	500 ml
1233654	1X DMEM with 4500 mg/l dextrose, L-glutamine, without sodium pyruvate	500 ml
1233854	1X DMEM with 4500 mg/l dextrose, without sodium pyruvate, L-glutamine	500 ml
1233449	1X DMEM with 20 mM HEPES, without L-glutamine, sodium bicarbonate	100 ml
1233454		500 ml
1642249	1X DMEM with 4500 mg/l dextrose, without L-glutamine, methionine	100 ml
1642254		500 ml
1642449	1X DMEM with 4500 mg/l dextrose, without L-glutamine, cystine, methionine, cysteine	100 ml
1642454		500 ml
1642054	1X DMEM without L-glutamine, cystine, methionine, cysteine, calcium	500 ml
1642149	1X DMEM with 4500 mg/l dextrose, without L-glutamine, L-leucine	100 ml 500 ml
1642349	1X DMEM with 4500 mg/l dextrose, without L-glutamine, phosphate	100 ml
1642354		500 ml
1642954	1X DMEM with 4500 mg/l dextrose, without L-glutamine, myo-inositol	500 ml
1642754	1X DMEM without L-glutamine, phenol red	500 ml

Dulbecco's Modification of Eagle's Medium/Ham's F-12 Medium:

Catalog Number	Description	Size
1246754	1X DMEM/Ham's F-12 (1:1) without L-glutamine	500 ml

10X Liquid:**Dulbecco's Modification of Eagle's Medium (DMEM):**

Catalog Number	Description	Size
1433054	10X DMEM without sodium bicarbonate, L-glutamine	500 ml

Powders:**Dulbecco's Modification of Eagle's Medium (DMEM):**

Catalog Number	Description	Size
1033120	DMEM with L-glutamine, 4500 mg/l dextrose, without sodium bicarbonate	10 x 1 liter
1033122		1 x 10 liter
1033124		1 x 50 liter
1033220	DMEM with L-glutamine, 4500 mg/l dextrose, without sodium bicarbonate, sodium pyruvate	10 x 1 liter
1033222		1 x 10 liter 1 x 50 liter
1033522	DMEM with 20 mM HEPES, L-glutamine, without sodium bicarbonate	1 x 10 liter

Dulbecco's Modification of Eagle's Medium/Ham's F-12 Medium:

Catalog Number	Description	Size
1046820	DMEM/Ham's F-12 (1:1) without L-glutamine, sodium bicarbonate	10 x 1 liter
1046822		1 x 10 liter
1046920	DMEM/Ham's F-12 (1:1) without L-glutamine, sodium bicarbonate, phenol red	10 x 1 liter
1046922		1 x 10 liter

References:

1. Dulbecco, R. and Freeman, G., *Virology*, v. **8**, 396 (1959).
2. Smith, J.D., et. al., *Virology*, v. **12**, 185 (1960).
3. Morton, H.J., *In Vitro*, v. **6**, 89 (1970).