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TECHNICAL INFORMATION

Catalog Number: 1629749, 1629754
RPMI 1640 (1X Solution) with 0.85 g/l sodium bicarbonate, without L-glutamine, phosphate

Description: This medium was originally developed by Moore and his colleagues at Roswell Park Memorial Institute (RPMI). It was based on the RPMI 1630 line of media which utilized a bicarbonate buffering system and alterations in the amounts of amino acids and vitamins. RPMI has successfully been used for the cultivation of normal human and neoplastic leukocytes. It is now a popular general purpose medium when properly supplemented.
A Dutch Modification of RPMI 1640 is also available through MP. The Dutch Modification contains 6400 mg/l sodium chloride instead of 6000 mg/l; contains 1000 mg/l sodium bicarbonate instead of 2000 mg/l; and contains 20 mM HEPES.
References:

– Moore, G.E., et. al., "Culture of Normal Human Leukoctyes." *JAMA*, **v. 199**, 519-524 (1967).
– Moore, G.E. and Woods, L.K., "Culture media for human cells RPMI 1603, RPMI 1634, RPMI 1640 and GEM 1717." *Tissue Culture Association Manual*, **v. 3**, 503-508 (1976).
– Moore, G.E., Gerner, R.E. and Minowada, J., "Studies of normal and neoplastic cells. Studies of normal and neoplastic human hematopoietic cells in vitro." *Twenty-first Annual Symposium on Fundamental Cancer Research*, February 1967, p. 41-43.
– Moore, G.E. and Kitamura, H., "Cell line derived from patient with myeloma." *NY State Journal of Medicine*, **v. 68**, 2054-2060 (1968).

Formulation:

Component	***mg/lt***	***Mol. Wt.***	***Mol. (mM)***
Amino Acids			
L-Arginine HCl	241.80000	210.7	1.15
L-Asparagine H_2O	56.82000	150.1	0.38
L-Aspartic Acid	20.00000	133.1	0.15
L-Cystine 2HCl	65.20000	313.2	0.21
L-Glutamic Acid	20.00000	147.1	0.14
Glycine	10.00000	75.07	0.13
L-Histidine HCl H_2O	20.20000	209.6	0.10
L-Hydroxyproline	20.00000	131.1	0.15
L-Isoleucine	50.00000	131.2	0.38
L-Leucine	50.00000	131.2	0.38
L-Lysine HCl	40.00000	182.6	0.22
L-Methionine	15.00000	149.2	0.10
L-Phenylalanine	15.00000	165.2	0.09
L-Proline	20.00000	115.1	0.17
L-Serine	30.00000	105.1	0.29

L-Threonine	20.00000	119.1	0.17
L-Tryptophan	5.00000	204.2	0.02
L-Tyrosine HCl	24.00000	217.7	0.11
L-Valine	20.00000	117.1	0.17
Vitamins			
Biotin	0.20000	244.3	0.0008
Choline Chloride	3.00000	139.6	0.0215
D-Calcium Pantothenate	0.25000	238.3	0.0010
Folic Acid	1.00000	441.4	0.0023
myo-Inositol	35.00000	180.2	0.1942
Nicotinamide	1.00000	122.13	0.0082
para-Aminobenzoic Acid	1.00000	137.1	0.0073
Pyridoxine HCl	1.00000	205.6	0.0049
Riboflavin	0.20000	376.4	0.0005
Thiamine HCl	1.00000	337.3	0.0030
Vitamin B12	0.00500	1355.4	0.000004
Inorganic Salts			
Calcium Chloride [$CaCl_2$ $2H_2O$] Dihydrate	100.00000	147	0.68
Magnesium Sulfate [$MgSO_4$]	48.80000	120.4	0.41
Potassium Chloride [KCl]	400.00000	74.55	5.37
Sodium Bicarbonate [$NaHCO_3$]	850.00000	84.01	10.12
Sodium Chloride [NaCl]	6000.00000	58.44	102.67
Other			
Dextrose	2000.00000	180.2	11.10
Glutathione (reduced)	1.00000	307.33	0.0033
Phenol Red Sodium Salt	5.00000	376.4	0.01
Add			
L-glutamine Powder (mg/L)	300.0000		
L-glutamine 200 mM Solution (mL/L)	10.2700		

Availability:
1X Liquid:

Catalog Number	Description	Size
1260249 1260254	1X RPMI 1640 without L-glutamine, pH 6.9-7.2	100 ml 500 ml
1260354	1X RPMI 1640 with L-glutamine	500 ml
1260554	1X RPMI 1640 with 25 mM HEPES, 4750 mg/l sodium bicarbonate, without L-glutamine	500 ml

1260654	1X RPMI 1640 with 25 mM HEPES, 4750 mg/l sodium chloride, L-glutamine	500 ml
1260449 1260454	1X RPMI 1640 with 25 mM HEPES, without sodium bicarbonate, L-glutamine	100 ml 500 ml
1265254	1X RPMI 1640 without L-glutamine, pH 7.2-7.4	500 ml
1260954	1X RPMI 1640 Dutch Modification without L-glutamine	500 ml
1265349 1265354	1X RPMI 1640 without L-glutamine, myo-inositol	100 ml 500 ml
1629149	1X RPMI 1640 without L-glutamine, L-leucine	100 ml
1629249 1629254	1X RPMI 1640 without L-glutamine, L-methionine	100 ml 500 ml
1646449 1646454	1X RPMI 1640 without L-glutamine, cystine, methionine, cysteine	100 ml 500 ml
1646754	1X RPMI 1640 without L-glutamine, phenol red	500 ml
1646854	1X RPMI 1640 without L-glutamine, dextrose	500 ml
1629749 1629754	1X RPMI 1640 with 850 mg/l sodium bicarbonate, without L-glutamine, phosphate	100 ml 500 ml

10X Liquid:

Catalog Number	Description	Size
1460054	10X RPMI 1640 without L-glutamine, sodium bicarbonate	500 ml

Powders:

Catalog Number	Description	Size
1060120 1060122 1060124	RPMI 1640 with L-glutamine without sodium bicarbonate	10 x 1 liter 1 x 10 liter 1 x 50 liter
1060222 1060224	RPMI 1640 with L-glutamine without sodium bicarbonate, phenol red	1 x 10 liter 1 x 50 liter
1060520 1060522	RPMI 1640 with L-glutamine, 25 mM HEPES, without sodium bicarbonate	10 x 1 liter 1 x 10 liter