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Product Information

RPMI-1640 Media, Modified

RPMI-1640 medium was developed by Moore et al., at Roswell Park Memorial Institute, hence the acronym RPMI. The formulation is based on the RPMI-1630 series of media utilizing a bicarbonate buffering system and alterations in the amounts of amino acids and vitamins.

RPMI-1640 medium has been used for the culture of human normal and neoplastic leukocytes. RPMI-1640 when properly supplemented, has demonstrated wide applicability for supporting growth of many types of cell cultures, including fresh human lymphocytes in the 72-hour phytohemagglutinin (PHA) stimulation assay.

	R7388	**R7509**	**R7513**	**R8755**
	[1×]	[1×]	[1×]	[powder]
COMPONENT	g/L	g/L	g/L	g/L
Inorganic Salts				
$Ca(NO_3)_2 \cdot 4H_2O$	0.1	0.1	0.1	0.1
$MgSO_4$ (anhydrous)	0.04884	0.04884	0.04884	0.04884
KCl	0.4	0.4	0.4	0.4
$NaHCO_3$	—	2	2	—
NaCl	6	6	6	6
Na_2HPO_4 (Anhydrous)	0.8	0.8	0.8	0.8
Amino Acids				
L-Arginine • HCl	0.2	0.2	0.2	0.2
L-Asparagine • H_2O	0.05	0.05	0.05	0.05
L-Aspartic Acid	0.02	0.02	0.02	0.02
L-Cystine • 2HCl • H_2O	0.0652	0.0652	—	0.0652
L-Glutamic Acid	0.02	0.02	0.02	0.02
L-Glutamine	0.3	—	—	0.3
Glycine	0.01	0.01	0.01	0.01
L-Histidine • HCl • H_2O	0.015	0.015	0.015	0.015
Hydroxy-L-Proline	0.02	0.02	0.02	0.02
L-Isoleucine	0.05	0.05	0.05	0.05
L-Leucine	0.05	0.05	0.05	0.05
L-Lysine • HCl	0.04	0.04	0.04	0.04
L-Methionine	0.015	0.015	—	0.015
L-Phenylalanine	0.015	0.015	0.015	0.015
L-Proline	0.02	0.02	0.02	0.02
L-Serine	0.03	0.03	0.03	0.03
L-Threonine	0.02	0.02	0.02	0.02
L-Tryptophan	0.005	0.005	0.005	0.005
L-Tyrosine • 2Na • $2H_2O$	0.02883	0.02883	0.02883	0.02883
L-Valine	0.02	0.02	0.02	0.02
Vitamins				
D-Biotin	0.0002	0.0002	0.0002	0.0002
Choline Chloride	0.003	0.003	0.003	0.003
Folic Acid	0.001	0.001	0.001	0.001
myo-Inositol	0.035	0.035	0.035	0.035
Niacinamide	0.001	0.001	0.001	0.001
p-Aminobenzoic Acid	0.001	0.001	0.001	0.001
D-Pantothenic Acid • ½Ca	0.00025	0.00025	0.00025	0.00025
Pyridoxine • HCl	0.001	0.001	0.001	0.001
Riboflavin	0.0002	0.0002	0.0002	0.0002
Thiamine • HCl	0.001	0.001	0.001	0.001
Vitamin B_{12}	0.000005	0.000005	0.000005	0.000005
Other				
D-Glucose	2	2	2	2
Glutathione (reduced)	0.001	0.001	0.001	0.001
HEPES	4.77	—	—	—
Phenol Red • Na	0.0053	—	0.0053	—

ADD				
L-Cystine • 2HCl • H_2O	—	—	0.0652	—
L-Glutamine	—	0.3	0.3	—
L-Methionine	—	—	0.015	—
Sodium Bicarbonate	2	—	—	2

References

1. Moore, G.E., et al., Culture of Normal Human Leukocytes. J.A.M.A., **199**, 519-524 (1967).
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3. Moore, G.E., et al., 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, 41-63 (1967).
4. Moore, G.E., and Kitamura, H., Cell Line Derived from Patient with Myeloma. NY State Journal of Medicine, **68**, 2054-2060 (1968).

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