

RPMI1640 Cell Culture Medium + HEPES + Sodium Pyruvate Specification Sheet



RPMI 1640 Cell Culture Medium

RPMI 1640 is one of several media used for the culture of human peripheral blood cells. RPMI 1640 supports the maintenance of these cells and proliferation in the presence of the correct supplements. RPMI 1640 contains no antimicrobials since these components can cause cell stress and “masking effects” that may influence experimental results. Lifeline offers these traditional supplements; however they are not needed, or recommended, to achieve optimal cell performance.

RPMI 1640 Cell Culture Medium Components

RPMI1640 is offered as a frozen basal medium extending shelf life and enhancing performance. RPMI 1640 Cell Culture Medium contains phenol red, 2 mM L-glutamine, 25 mM HEPES and 1 mM sodium Pyruvate. RPMI 1640 may be purchased separately or in a kit containing Human Serum (LS-1081).

Product	Part No.	Volume To Add	Final Concentrations in Supplemented Medium	Storage
RPMI 1640 Medium Complete Kit, (RPMI 1640 Basal Medium – 100 mL, Human Serum – 2 mL)	LL-0054			2-8°C when prepared
RPMI 1640 Basal Medium	LM-0025	100 mL		-20°C
Human Serum LifeFactor	LS-1081	2 mL	2%	-20°C
Optional Supplements	Part No.	Volume	Concentrations of Supplement	Storage
Phenol Red Supplement	LS-1009	1.0 mL	33 mM	RT
Antimicrobial Supplement: Penicillin, Streptomycin and Amphotericin B	LS-1011	1.0 mL	Penicillin 10,000 Units/mL Streptomycin 10,000 µg/mL Amphotericin B 25 µg/mL	-20°C

Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline manufactures products using the highest quality raw materials and incorporates ISO style quality assurance in every production run. Exacting standards and production procedures ensure lot-to-lot consistency. Every production lot of RPMI 1640 Medium is extensively tested using endothelial cells.

- Sterility Testing Negative for bacterial and fungal growth
- pH 7.4 +/- 0.3
- Cell Testing Rate of proliferation and morphology
- Osmolality 285 +/- 20 mOsm
- Endotoxin < 0.5 EU/mL

To place an order, please visit lifelinecelltech.com or call technical and customer service at 877.845.7787.

RPMI 1640 Medium + HEPES + Sodium Pyruvate with 2% Human Serum may be used for the maintenance of a variety of non-adherent cell types. Different supplements are required for proliferation and/or secretion of cytokines or antibodies. Different supplements are required for different populations of peripheral blood cells.

Human Monocytes and Human Monocyte-Derived Dendritic Cells require the addition of the growth factors in the table below for maintenance.

HPBMC, Human T Cells and Human B Cells may be stimulated with the growth factors listed below, but can be maintained in RPMI 1640 Medium + HEPES + Sodium Pyruvate with 2% Human Serum.

Cell Type	Part No.	Activator(s) or Growth Factor(s) [Final Concentration]
HPBMC	HC-0001	Phytohemagglutinin [1 µg/mL] OR PMA [10 ng/mL]; IL-2 [10 ng/mL]
Human Monocytes	HC-0002	M-CSF or GM-CSF [10 ng/mL]
Human Dendritic Cells	HC-0003	GM-CSF [500 U/mL]; IL-4 [500 U/mL]
Human T Cells	HC-0004	Phytohemagglutinin [1 µg/mL] OR PMA [10 ng/mL]; IL-2 [10 ng/mL]
Human B Cells	HC-0005	Soluble CD40 Ligand (CD154) [2 µg/mL]; IL-4 [5 ng/mL]

The Lifeline® Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. If Lifeline's products do not meet our posted performance and quality standards, we will replace them at no charge or provide a full refund. Upon request, Lifeline will provide lot-specific QC test results, material safety data sheets and certificates of analysis. See complete guarantee/warranty statement at lifelinecelltech.com or contact your Lifeline representative for more information.

Innovative Packaging Features

Lifeline has made significant improvements to traditional medium packaging.

- The specially designed shrink label works as a light barrier to help protect medium from light damage.
- A barrier sleeve helps protect the medium from contaminants found in the water bath.
- Lifeline is an environmentally friendly company. Our cell culture media bottles are recyclable and we ship all products with biodegradable packing material.

Safety Statement

This product is For Research Use Only. This product is not approved for human or veterinary use, or for use in *in vitro* diagnostics or clinical procedures.

Call Lifeline Technical Service and Sales at 877.845.7787
or visit lifelinecelltech.com for more information

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