

RPMI-1640 Medium, GlutaPlus, no Phenol Red

Cat. No.: G4536

Product Information

Product Name	Cat. No.	Spec.
RPMI-1640 Medium, GlutaPlus, no Phenol Red	G4536-500ML	500 mL

Product Description

The RPMI in RPMI-1640 is an acronym for Roswell Park Memorial Institute, which stands for the Roswell Park Memorial Institute, and RPMI-1640 is a cell culture medium developed by the institute. Originally designed specifically for lymphocyte culture, this medium is now widely used for the culture of various normal and cancer cells, especially suspension cells, and is one of the most widely used media.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add 5-10% serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1 μ m filter membrane, pH 7.0-7.4, contains 11.1 mM D-glucose, 2.05 mM L-Alanyl-L-Glutamine, without phenol red indicator, HEPES and sodium pyruvate.

L-Alanyl-L-Glutamine is a cell culture additive, replaces the equivalent molar amount of L-glutamine in cell culture medium. It is very stable in aqueous solution and does not degrade spontaneously. Instead, it is slowly degraded to release glutamine, which is then taken up and utilized by the cells, avoiding the spontaneous degradation of L-glutamine that is toxic to the cells.

Phenol Red is the most commonly used pH indicator in cell culture medium and is used to continuously monitor the pH of the culture medium. When the pH of the culture medium is low, the culture medium appears orange to yellow, when the pH is high, the culture medium appears purple-red. The culture medium is red when the pH is 7.0-7.4, it is most suitable for cell culture. Phenol Red is a structural analogue of steroid hormone. Studies have shown that phenol red added to the medium mimics the effects of steroid hormones (especially estrogen) and therefore when used in estrogen-sensitive cells, for example, for breast tissue cells, it is best to use a phenol red-free medium. In addition, phenol red also can interfere with flow cytometry analytical assays.

Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

Note

1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
2. Avoid freezing the culture medium. Freezing may cause precipitation and precipitation of nutrients, which may not be completely dissolved after rewarming, affecting the cell culture effect. In addition, when the medium is stored at 2-8°C, do not store it completely close to the inner wall of the refrigerator to prevent the medium from freezing due to localized low

temperature.

3. Store away from light. This product is pale yellow to light amber in color. Photooxidation may cause partial oxidation of photosensitive amino acids, resulting in a slightly deeper yellow hue of the culture medium. Minor color changes do not affect its use. Do not use the product if significant yellow discoloration occurs.
4. For your safety and health, please wear safety glasses, gloves and protective clothing.

For Research Use Only!

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G4536 RPMI-1640 Formula

Components	Concentration		Components	Concentration	
	mg/L	mM		mg/L	mM
Amino acids			Vitamins		
Glycine	10	0.133	Biotin	0.2	0.00082
L-Arginine hydrochloride	241.86	1.149	Choline chloride	3	0.02143
L-Asparagine hydrate	56.82	0.379	D-Calcium pantothenate	0.25	0.00052
L-Aspartic Acid	20	0.15	Folic Acid	1	0.00227
L-Cystine dihydrochloride	65.2	0.208	Niacinamide	1	0.0082
L-Glutamic Acid	20	0.136	Para-Aminobenzoic Acid	1	0.0073
L-Histidine HCl H ₂ O	20.22	0.097	Pyridoxine hydrochloride	1	0.00485
L-Hydroxyproline	20	0.153	Riboflavin	0.2	0.00053
L-Isoleucine	50	0.382	Thiamine hydrochloride	1	0.00297
L-Leucine	50	0.382	Vitamin B12	0.005	0.00000
				369	
L-Lysine hydrochloride	40	0.219	i-Inositol	35	0.19444
L-Methionine	15	0.101	Inorganic salts		
L-Phenylalanine	15	0.091	Calcium nitrate (Ca(NO ₃) ₂ ·4H ₂ O)	100	0.4237
			Magnesium Sulfate (MgSO ₄) (anhyd.)	48.84	0.407
L-Proline	20	0.174	Potassium Chloride (KCl)	400	5.33
L-Serine	30	0.286	Sodium Bicarbonate (NaHCO ₃)	2000	23.8
L-Threonine	20	0.168	Sodium Chloride (NaCl)	6000	103.4
L-Tryptophan	5	0.025	Sodium Phosphate monobasic (NaH ₂ PO ₄) (anhyd.)	800	5.63
L-Tyrosine Disodium Salt Dihydrate	28.83	0.111	Other components		
L-Valine	20	0.171	D-Glucose (Dextrose)	2000	11.11
L-Alanyl-L-Glutamine	446	2.055	Glutathione (reduced)	1	0.003