

DATA SHEET

Rev.ver: 01

1. Identification

Product name	Leibovitz's L-15 Medium With L-Glutamine Without Sodium Bicarbonate
CAT.no	CCMP050

2. Description

Leibovitz's Medium was specifically formulated to support cell growth in environments without CO₂. Instead of the typical sodium bicarbonate/CO₂ buffering system, this medium incorporates a blend of free basic amino acids, phosphate buffers, and elevated levels of galactose and sodium pyruvate. As a result, it does not require sodium bicarbonate supplementation and allows for open exchange with atmospheric air. Leibovitz's Medium is suitable for culturing human tumor cells, embryonic cells, and established cell lines such as HeLa and Hep-2. It is also widely used in diagnostic virology, where tissue cell lines or strains are cultured in closed systems. Notably, Leibovitz's Medium reduces the need for frequent medium changes. Leibovitz's Medium containing L-glutamine. For best results, users should consult relevant literature on appropriate supplementation and growth requirements for specific cell lines.

3. Product Specifications

Appearance	White to light pink, homogenous powder
CO ₂ concentration, optimum	5.0 %
Storage and shelf life	Store at +2°C to +8°C protected from light.
Shipping conditions	Ambient

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4. Formulation

Components	Concentration mg/L
Amino Acids:	
L-Alanine	225
L-Arginine HCl	500
L-Asparagine H ₂ O	284
L-Cystine 2HCl	120
L-Glutamine	300
Glycine	200
L-Histidine HCl H ₂ O	250
L-Isoleucine	125
L-Leucine	125
L-Lysine HCl	93.70
L-Methionine	75.00
L-Phenylalanine	125.0
L-Serine	200
L-Threonine	300
L-Tryptophan	20.00
L-Tyrosine 2Na 2H ₂ O	430.0
L-Valine	100.0
Vitamins:	
Choline chloride	1.0
D-Pantothenic acid • ½Ca	1.0
Folic Acid	1.0
myo-Inositol	2.0
Nicotinamide	1.0
Pyridoxal HCl	1.0
Riboflavin	0.10
Thiamine HCl	1.0
Thiamine monophosphate	1.0
Inorganic Salts	
CaCl ₂ 2H ₂ O	185
MgSO ₄ (anhydrous)	97.72
KCl	400
NaCl	8000
NaH ₂ PO ₄	190.120
Magnesium chloride hexahydrate	200
Potassium phosphate, monobasic	60
Other Components:	
D-Galactose	900.0
Phenol red sodium salt	11.0
Sodium Pyruvate	550.0



BioArtha Labs PVT LTD
Unit 2, Plot #R-11, 1st Cross, KSSIDC
Industrial Estate Bommasandra 2nd
Stage, Yarandahalli Jigani Rd
Bangalore, Karnataka -560099 (India)

info@bioarthalabs.com

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Preparation of 1-liter liquid medium:

1. Suspend 14.1 g in 900 ml cell culture grade water with constant, gentle stirring until the powder is completely dissolved. Do not heat the water.
2. Add 2.2 g of sodium bicarbonate powder for 1 liter of medium and stir until dissolved.
3. Adjust the pH to 0.2 to 0.3 pH units below the desired pH using 1 N HCl or 1 N NaOH since the pH tends to rise during filtration.
4. Add cell culture grade water up to the final volume of 1000 ml
5. Sterilize the medium immediately by filtering through a sterile membrane filter with porosity of 0.22 micron or less, using positive pressure rather than vacuum to minimize the loss of carbon dioxide.
6. Aseptically add sterile supplements as required and dispense the desired amount of sterile medium into sterile containers.
7. Store liquid medium at +2°C to +8°C and in dark until use.

5. Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.