

α-MEM

Product No. A1913

Description

Powder mixture to prepare α-MEM medium according to Stanners, C.P. et al. (1971) *Nature New Biology* **230**, 52 and Stanners, C.P. & Goldberg, V.J. (1975) *J. Gen. Virol.* **29**, 281.

without L-Glutamine
with Deoxyribonucleosides
with Ribonucleosides
without Sodium hydrogen carbonate

Hygroscopic!
Storage: 2-8°C

Instructions

General Information: Powdered media and salts are very hygroscopic and must be stored under dry conditions. After opening the package the whole contents must be dissolved at once.

Reconstitute the powdered form of media to produce 1X liquid medium, as the different amino acids may precipitate at higher concentrations. They potentially can form salts which are of low solubility in concentrated solutions. If supplements are needed, they can be added before filtration (unsterile) or after filtration (sterile).

Use bidistilled or deionized, pyrogen-free water to reconstitute powder media.

Preparing sterile filtered liquid medium

- 1.) Add water to the required quantity of powdered medium (use approx. 90 % of the required amount of water so as to adjust the pH later). Flush out any remaining powder from the container. Stir until completely dissolved. The temperature of the water should be between 15-30°C
- 2.) When the powder is completely dissolved, **add Sodium hydrogen carbonate (NaHCO₃) 2,200 g per liter of final medium** and dissolve completely as well.
- 3.) Adjust to the desired pH value (physiological optimum is pH 6.8 - 7.2) with 1 M HCl or 1 M NaOH while stirring.

Note: The pH should be approx. 0.2 units lower than the target pH, since pH will rise slightly during filtration when CO₂ leaks out.

- 4.) After adjusting the pH, add water to the appropriate final volume and mix well. Filter immediately under sterile conditions.
- 5.) Store the medium at 2-8°C protected from light.

α-MEM

Product No. A1913

Composition:

Components		mg/L final medium: 9,96g/L
Inorganic	Calcium chloride x 2H ₂ O	264,92
salts	Potassium chloride	400,00
	Magnesium sulfate dried	139,52
	Sodium chloride	6800,00
	Sodium dihydrogen phosphate x H ₂ O	140,00
Other	D(+)-Glucose anhydr.	1000,00
Components	DL-alpha-Lipoic acid	0,20
	Sodium pyruvate	110,00
	Phenol red	10,00
Amino acids	L-Alanine	25,00
	L-Arginine x HCl	126,64
	L-Asparagine x H ₂ O	50,00
	L-Aspartic acid	30,00
	L-Cysteine x HCl x H ₂ O	100,00
	L-Cystine	24,00
	L-Glutamic acid	75,00
	Glycine	50,00
	L-Histidine x HCl x H ₂ O	42,00
	L-Isoleucine	52,40
	L-Leucine	52,40
	L-Lysine x HCl	72,47
	L-Methionine	15,00
	L-Phenylalanine	32,00
	L-Proline	40,00
	Vitamins	L-Serine (non animal origin)
L-Threonine		48,00
L-Tryptophan		10,00
L-Tyrosine		36,20
L-Valine		46,00
L(+)-Ascorbic acid powdered		50,00
D(+)-Biotin		0,10
D-Calcium pantothenate		1,00
	Choline chloride	1,00
	Folic acid	1,00

Vitamins, continued	myo-Inositol	2,00
	Nicotinamide	1,00
	Pyridoxal x HCl	1,00
	Riboflavin	0,10
	Thiamine x HCl	1,00
	Vitamin B12	1,33
Ribonucleoside	Adenosine	10,00
	Cytidine	10,00
	Guanosine	10,00
Deoxyribonucleoside	Uridine	10,00
	2'-Deoxyadenosine x H ₂ O	10,00
	2'-Deoxycytidine x HCl	11,00
	2'-Deoxyguanosine x H ₂ O	10,00
	2'-Deoxythymidine	10,00