DMEM (Dulbecco's mod. Eagle - Medium)

Product No. A1316

Description

Powder mixture to prepare DMEM (Dulbecco's mod. Eagle - Medium) according to Dulbecco, R. & Freeman, G. (1959) *Virology* **8**, 396 and Smith et al. (1960) *Virology* **12**, 185

with 4.5 g/L D(+)-Glucose
with L-Glutamine
without Sodium pyruvate
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 ($NaHCO_3$) 3,70 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 CO_2 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.

PanReac AppliChem ITW Reagents

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Composition:

	Components	**mg/L final medium:13,44g/L**
Inorganic	Calcium chloride x 2H2O	264,92
salts	Iron(III) nitrate x 9H2O	0,10
	Potassium chloride	400,00
	Magnesium sulfate dried	139,57
	Sodium chloride	6400,00
	Sodium dihydrogen phosphate x H2O	125,00
Other	D(+)-Glucose anhydr.	4500,00
Components	Phenol red	15,00
Amino acids	L-Arginine x HCl	84,00
	L-Cystine	48,00
	L-Glutamine	584,00
	L-Glycin	30,00
	L-Histidine x HCl x H2O	42,00
	L-Isoleucine	105,00
	L-Leucine	105,00
	L-Lysine x HCl	146,00
	L-Methionine	30,00
	L-Phenylalanine	66,00
	L-Serine (non animal origin)	42,00
	L-Threonine	95,00
	L-Tryptophan	16,00
	L-Tyrosine	72,00
	L-Valine	94,00
Vitamins	D-Calcium pantothenate	4,00
	Choline chloride	4,00
	Folic acid	4,00
	myo-Inositol	7,20
	Nicotinamide	4,00
	Pyridoxal x HCl	4,00
	Riboflavin	0,40
	Thiamine x HCl	4,00