

## Glasgow - MEM (BHK 21)

Product No. A1321

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### Description

Powder mixture to prepare Glasgow-MEM (BHK 21) - Medium according to MacPherson, I. & Stoker, M (1962) *Virology* **16**, 147. GMEM is a modification of the Eagle medium for the cultivation of primary hamster kidney cells. The concentration of vitamins and amino acids is twice as high in this version.

**with L-Glutamine**  
**with Tryptose/Phosphate-Bouillon**  
**without Sodium hydrogen carbonate**

Hygroscopic!  
Storage: 2-8°C

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### 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<sub>3</sub>) 2.75 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<sub>2</sub> 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.

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### Composition:

Components		mg/L final medium: <b>14.29g/L</b>
Inorganic	Calcium chloride x 2H <sub>2</sub> O	238,43
salts	Iron(III) nitrate x 9H <sub>2</sub> O	0,09
	Potassium chloride	360,00
	Magnesium sulfate dried	125,64
	Sodium chloride	6260,00
	di-Sodium hydrogen phosphate anhydr.	250,00
	Sodium dihydrogen phosphate x H <sub>2</sub> O	111,60
Other	D(+)-Glucose anhydr.	4250,00
Components	Phenol red	13,50
	Pepton from caseine	1000,00
	Pepton from meat	500,00
	Yeast extract	500,00
Amino acids	L-Arginine x HCl	37,80
	L-Cystine	21,60
	L-Glutamine	262,80
	L-Histidine x HCl x H <sub>2</sub> O	18,90
	L-Isoleucine	47,16
	L-Leucine	47,16
	L-Lysine x HCl	65,79
	L-Methionine	13,50
	L-Phenylalanine	29,70
	L-Threonine	42,84
	L-Tryptophan	7,20
	L-Tyrosine	32,52
	L-Valine	42,12
	Vitamins	D-Calcium pantothenate
Choline chloride		1,80
Folic acid		1,80
myo-Inositol		3,24
Nicotinamide		1,80
Pyridoxal x HCl		1,80
Riboflavin		0,18
Thiamine x HCl		1,80