

Product Information

DMEM High Glucose (4.5 g/l) Powder Medium, 50 L, with L-Glutamine, with Sodium Pyruvate, without Sodium Bicarbonate

Catalog Number: GBPWDM03

Product Specification

| | |
|----------------------|---|
| Appearance | : Off-white to creamy white, homogenous powder |
| Storage & Shelf Life | : Store at +2°C to +8°C, dry and protected from light. Please refer to product label for expiration date. |
| Shipping Conditions | : Ambient |
| Use at | : 13.67 g/L |
| Add | : 3.7 g/L Sodium Bicarbonate |

Instructions for Use

Preparation of 1 liter liquid medium

1. Suspend 13.67 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 3.7 g of sodium bicarbonate powder or 49.3 ml of 7.5 % sodium bicarbonate solution 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.

Additional Information

- Concentrated medium preparation is not suggested as it may cause precipitation of low-solubility free base amino acids and salt complexes.
- The pH and sodium bicarbonate concentration of the prepared medium are significant parameters influencing cell development. The surface-to-volume ratio of the culture vessel and the amount of media employed also impact this. In large bottles, releasing huge amounts of carbon dioxide causes a noticeable increase in pH. Optimal pH, sodium bicarbonate content, and surface-to-volume ratios must be calculated for each cell type. We suggest strict pH monitoring. To alter the pH, use sterilized 1 N HCl or 1 N NaOH, or formed bubbles in carbon dioxide.
- If necessary, supplements can be given to the medium before or after filter sterilization while following sterility precautions. The shelf life of the medium will be determined by the type of supplement added to it.

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Formulation

| Components | Concentration mg/L | Components | Concentration mg/L |
|--|--------------------|-----------------------------------|--------------------|
| Vitamins: | | Amino Acids: | |
| Choline chloride | 4.00 | L-Arginine HCl | 84.00 |
| D-Calcium Pantothenate | 4.00 | L-Cystine 2 HCl | 62.57 |
| Folic Acid | 4.00 | L-Glutamine | 584.00 |
| myo-Inositol | 7.20 | Glycine | 30.00 |
| Nicotinamide | 4.00 | L-Histidine HCl H ₂ O | 42.00 |
| Pyridoxal HCl | 4.00 | L-Isoleucine | 105.00 |
| Riboflavin | 0.40 | L-Leucine | 105.00 |
| Thiamine HCl | 4.00 | L-Lysine HCl | 146.00 |
| Inorganic Salts: | | L-Methionine | 30.00 |
| CaCl ₂ 2 H ₂ O | 265.00 | L-Phenylalanine | 66.00 |
| Fe(NO ₃) ₃ 9 H ₂ O | 0.10 | L-Serine | 42.00 |
| MgSO ₄ 7H ₂ O | 200.10 | L-Threonine | 95.00 |
| KCl | 400.00 | L-Tryptophan | 16.00 |
| NaCl | 6400.00 | L-Tyrosine 2 Na 2H ₂ O | 103.79 |
| NaH ₂ PO ₄ 2H ₂ O | 141.73 | L-Valine | 94.00 |
| Other Components: | | | |
| D-Glucose | 4500.00 | | |
| Phenol Red Sodium Salt | 15.90 | | |
| Sodium Pyruvate | 110.00 | | |

This product is for research use only.

Need help?

If you have any further queries, please feel free to email our cell culture specialists at info@genexisbiotech.com