

## MEM, GlutaPlus, HEPES

**Cat. No.: G4552**

### Product Information

| Product Name          | Cat. No.    | Spec.  |
|-----------------------|-------------|--------|
| MEM, GlutaPlus, HEPES | G4552-500ML | 500 mL |

### Product Description

MEM (Minimum Essential Medium), also known as minimum basic medium, low limit Eagle medium, is one of the most commonly used basic medium in animal cell culture. MEM contains only 12 amino acids, 8 vitamins and basic inorganic salts, with a simple nutrient composition, is mainly used for the culture of walled cells, but can also be used for other types of cell culture after the formulation is revised.

This product contains amino acids, vitamins, inorganic salts and other ingredients required for cell culture, without protein or growth factors. Need to add serum or serum-free additives depending on the cell type.

This product is filtered and sterilized by 0.1  $\mu$ m filter membrane, pH 7.0-7.4, contains 5.5 mM D-glucose, 1.87 mM L-Alanyl-L-Glutamine, phenol red indicator and 25 mM HEPES, without sodium pyruvate and NEAA.

HEPES is an excellent biological buffer with no toxic effect on cells, and the medium with HEPES can maintain a constant pH range for a longer period of time.

### Storage and Shipping Conditions

Ship at room temperature; Store away from light at 2-8°C, valid for 12 months.

### Note

1. This product has been filtered and sterilized. Attention should be paid to aseptic operation to avoid contamination.
2. For best results, do not freeze and thaw repeatedly.
3. For your safety and health, please wear safety glasses, gloves and protective clothing.

**For Research Use Only!**

**Ver. No.: V1.1-20260528**

### G4552 MEM Formula

| Components                         | Concentration |         | Components                                                              | Concentration |         |
|------------------------------------|---------------|---------|-------------------------------------------------------------------------|---------------|---------|
|                                    | mg/L          | mM      |                                                                         | mg/L          | mM      |
| <b>Amino acids</b>                 |               |         | <b>Inorganic salts</b>                                                  |               |         |
| L-Arginine hydrochloride           | 126           | 0.5972  | Calcium Chloride (CaCl <sub>2</sub> )(anhyd.)                           | 200           | 1.802   |
| L-Cystine dihydrochloride          | 31            | 0.09904 | Magnesium Sulfate heptahydrate (MgSO <sub>4</sub> • 7H <sub>2</sub> O ) | 200           | 0.813   |
| L-Alanyl-L-Glutamine               | 406.2         | 1.87    | Potassium Chloride (KCl)                                                | 400           | 5.333   |
| L-Histidine HCl H <sub>2</sub> O   | 42            | 0.2     | Sodium Bicarbonate (NaHCO <sub>3</sub> )                                | 2200          | 26.19   |
| L-Isoleucine                       | 52            | 0.3969  | Sodium Chloride (NaCl)                                                  | 6350          | 109.5   |
| L-Leucine                          | 52            | 0.3969  | Sodium Phosphate monobasic (NaH <sub>2</sub> PO <sub>4</sub> ) (anhyd.) | 122           | 1.014   |
| L-Lysine hydrochloride             | 73            | 0.3989  | <b>Other components</b>                                                 |               |         |
| L-Methionine                       | 15            | 0.1007  | D-Glucose (Dextrose)                                                    | 1000          | 5.556   |
| L-Phenylalanine                    | 32            | 0.1939  | Phenol Red                                                              | 9.4           | 0.02657 |
| L-Threonine                        | 48            | 0.4034  | HEPES                                                                   | 5958          | 25.03   |
| L-Tryptophan                       | 10            | 0.04902 |                                                                         |               |         |
| L-Tyrosine Disodium Salt Dihydrate | 52            | 0.1992  |                                                                         |               |         |
| L-Valine                           | 46            | 0.3932  |                                                                         |               |         |
| Glycine                            | -             | -       |                                                                         |               |         |
| L-Alanine                          | -             | -       |                                                                         |               |         |

|                             |     |          |
|-----------------------------|-----|----------|
| L-Asparagine<br>monohydrate | -   | -        |
| L-Aspartic Acid             | -   | -        |
| L-Glutamic Acid             | -   | -        |
| L-Proline                   | -   | -        |
| L-Serine                    | -   | -        |
| <b>Vitamins</b>             |     |          |
| Choline chloride            | 1   | 0.007143 |
| D-Calcium<br>pantothenate   | 1   | 0.002096 |
| Folic Acid                  | 1   | 0.002268 |
| Niacinamide                 | 1   | 0.008197 |
| Pyridoxine<br>hydrochloride | 1   | 0.004902 |
| Riboflavin                  | 0.1 | 0.000266 |
| Thiamine<br>hydrochloride   | 1   | 0.002967 |
| i-Inositol                  | 2   | 0.01111  |

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