

Product Name

Name: MEM Amino Acids Solution, 50X Conc., without L-Glutamine

Cat. No.: C3250-0100

Size: 100 mL

Product Description

Amino acids polymerize into long linear chains to form proteins, which have a variety of functions in metabolism, may be the precursors for the biosynthesis of other biological molecules, are critical to life, and are therefore needed by every living organism. An amino acid is a molecule containing both an amine group and a carboxyl functional group. Proteins are chains of amino acids linked together by peptide bonds. Next to water, protein makes up the largest portion of our body weight as it is contained in muscles, body organs, hair, nails, and other body systems. There are more than 500 different modifications of amino acids, which occur in nature, of which humans can produce only 10 out of all 20 amino acids; the others must be supplied by the diet. Unlike fat and complex carbohydrates, the human body does not store excess amino acids as a reserve; they must be supplied in the diet every day.

Amino acids are incorporated into proteins. At a minimum, basal medium must contain the essential amino acids (EAA's) that cannot be synthesized by the cells including L-cysteine and L-tyrosine at a rate to meet the cells' metabolic requirements. Individual requirements vary for the cell type being cultured. Some more specialized media often have non-essential amino acids (NEAA's) added to ensure that the amino acids do not limit the maximum cell concentration attainable.

As the selection of a nutrient medium or supplementation thereof is strongly influenced, among others, by many factors, of note are three major considerations:

- Cell type
- Type of culture (e.g., clonal, monolayer, suspension)
- Degree of nutrient requirement

It is recommended to review the extensive literature concerning cell-culture media and its supplementation and the physiological parameters required for each specific cell line as per their essential niche requirements.

Predominant Characteristics

- Liquid 50X concentrate
- Stimulates growth and prolongs cell viability
- Commonly used in cell culture system applications and formulations
- Relatively long-storage when handled and stored properly under defined conditions

Storage and Stability

The product should be kept at **2 - 8°C**.

The product is **light-sensitive** and therefore should not be left in the light.

Shelf life: 12 months from date of manufacture.



Procedure

1. Take a bottle from the refrigerator at 2 - 8°C and read the label. Warm up to room temperature (15 - 30°C) prior to use.
2. Ensure that the cap of the bottle is tight.
3. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
4. Pipette appropriate volume using aseptic/sterile technique under a laminar-flow culture hood.
5. It is recommended to add 2 mL of this product at a 1:50 dilution to every 100 mL of culture medium.

Manufacturer

Shanghai Dr. Cell Co., Ltd.

Issue Date

June 2023

Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.

