ClearLine	Technical data sheet Media Powder	Ref : 509196

MEM Alpha Modification

w/ Earle's Salts, w/ L-Glutamine, w/o Sodium Bicarbonate

Storage conditions: Store dry powder medium at +2°C to +8°C
Store hydrated medium at +2°C to +8°C, protected from light

Shelf life: 36 months

Composition: Displayed on website and in catalogue; also available on request.

pH: 3.7 ± 0.3

Osmolality: 255 mOsm/kg ± 10%

Endotoxin: < 1 EU/ML

Recommended use:
- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store the product in a dry area
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g.: gloves, mask, hygiene cap, overall…)
- Protect the product from any form of humidity
- Use, in one time, after opening, the entire quantity of product of the container, without making a concentrated solution (to avoid the formation of precipitates). If it is not possible, close the container immediately after sampling the quantity of powder required.
- Supplements can be added prior to sterile filtration of the medium or aseptically introduced to sterile medium (respect the final concentration of the media). The nature of the supplements may affect storage conditions and shelf life of the medium.

The product is intended to be used in vitro for research or further manufacturing only and not for use as an Active Pharmaceutical Ingredient or food or animal feed.

Application:
Minimum Essential Medium (MEM), developed by Harry Eagle, is one of the most widely used of all synthetic cell culture media. Early attempts to cultivate normal mammalian fibroblasts and certain subtypes of HeLa cells revealed that they had specific nutritional requirements that could not be met by Eagle's Basal Medium (BME).
Subsequent studies using these and other cells in culture indicated that additions to BME could be made to aid growth of a wider variety of fastidious cells. MEM, which incorporates these modifications, includes higher concentrations of amino acids so that the medium more closely approximates the protein composition of cultured mammalian cells. MEM has been used for cultivation of a wide variety of cells grown in monolayers. Optional supplementation of non-essential amino acids to the formulations that incorporate either Hanks' or Earle's salts has broadened the usefulness of this medium. The formulation has been further modified by optional elimination of calcium to permit growth of cells in suspension culture.

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Uses:

1) Measure 80 - 90% of final required volume of water. Water temperature should be 15-30°C.
2) While gently stirring the water, add the powdered medium (10.131g/l) . Stir until dissolved. Do not heat.
3) Rinse original package with a small amount of water to remove all traces of powder. Add to solution in step 2.
4) For each liter being prepared, add 2.20g sodium bicarbonate (of 7.5% sodium bicarbonate solution (
5) While stirring, adjust the pH of the medium to
6) Add additional water to bring the solution to final volume.
7) Sterilize immediately by filtration using a membrane with a porosity of 0.22 microns.
8) Aseptically dispense medium into sterile container.

Signs of deterioration:

Dry powder medium should be free flowing. Do not use if powder caked. Prepared medium should be cleared of particulates and flocculent material. Do not use if liquid medium is cloudy or contains precipitate. Other evidence of deterioration may include color change or degradation of physical or performance characteristics.

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