CDH

Product Specification

cdhfinechemical.com

Technical Information

AME's Medium

With L-Glutamine Without Phenol red and Sodium bicarbonate

Product Code: AT1121

Application :- AME's medium was specially formulated to maintain rabbit retina in vitro. Rabbit retina is a good model for studying relationships between function and metabolismin organized mammalian central nervous tissue. Rabbit retina offers several advantages as it is easily accessible and strong enough to remain intact during manipulations.AME's medium is formulated to closely resemblethe composition of the cerebrospinal fluid that bathes the retina in vivo. Morphologic, metabolic, and electrophysiologic measurements obtained on the in vitro retinas showed that they remained in a nearly physiological state for at least 8 h, and even after 2 days invitro they still exhibited a high level of metabolic activityand electrical responsiveness to light. AME's medium therefore remains the medium of choice for maintaining central nervous tissue in vitro.

AT1121 is AME's Medium with L-glutamine. It does not contain Phenol red and Sodium bicarbonate. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition**

Ingredients	mg / Litre
INORGANIC SALTS	
Calcium chloride dihydrate	169.00
Magnesium sulphate anhydrous	149.270
Potassium chloride	231.00
Potassium dihydrogen phosphate anhydrous	68.000
Sodium chloride	7010.000
AMINO ACIDS	
Glycine	0.450
L-Alanine	2.400
L-Arginine hydrochloride	4.210
L-Asparagine anhydrous	0.84
L-Aspartic acid	0.12
L-Cysteine dihydrochloride	0.065
L-Glutamic acid sodium salt	1.183
L-Glutamine	73.000
L-Histidine hydrochloride	2.513
L-Isoleucine	0.580
L-Leucine	1.440
L-Lysine hydrochloride	3.648
L-Methionine	0.390
L-Phenylalanine	1.320
L-Proline	0.070
L-Serine	2.520
L-Threonine	3.330
L-Tryptophan	0.490
L-Tyrosine Disodium Salt	1.820
L-Valine	1.760
Taurine	0.750

VITAMINS	
Ascorbic acid Sodium salt	17.960
Choline chloride	0.700
Cytidine	0.730
D-Biotin	0.100
D-Ca- pantothenate (Hemicalcium)	0.100
Folic acid	0.100
Niacinamide	0.100
Pyridoxal hydrochloride	0.100
Riboflavin	0.010
Thiamine hydrochloride	0.100
Myo Inositol	27.200
OTHERS	
D-Glucose	1081.00
Hypoxanthine	0.820
Sodium pyruvate	13.330
Thymidine	0.240
Uridine	0.730

Methodology

1. Suspend 8.9 gms in 900ml tissue culture grade water with constant, gentle stirring until the powder is completely dissolved. Do not heat the water.
2. Add 1.9gms of sodium bicarbonate powder (TC1230) or 25.3ml of 7.5% sodium bicarbonate solution (TCL1013) for 1litre of medium and stir until dissolved.
3. Adjust the pH to 0.2 0.3 pH units below the desired pH using 1N HCl or 1N NaOH since the pH tends to rise duringfiltration.
4. Make up the final volume to 1000ml with tissue culture grade water.
5. Sterilize the medium immediately by filtering through a sterile membrane filter with a 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 2-8 ºC and in dark till use

Material required but not provided

Tissue culture grade water (TCL1010)
Sodium bicarbonate (TC1230)
Sodium bicarbonate solution, 7.5% (TCL1013)
1N Hydrochloric acid (TCL1003)
1N Sodium hydroxide (TCL1002)
Foetal bovine serum (BA3112/BA30432)

Quality Control

Appearance
Off-white to Creamish white, homogenous powder .

Solubility
Clear solution at 8.9gms/L

pH without Sodium Bicarbonate
4.30-4.90

pH with Sodium Bicarbonate
7.40-8.00

Osmolality without Sodium Bicarbonate

230.00-270.00

Osmolality with Sodium Bicarbonate

260.00-300.00

Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium through minimum three subcultures.

Endotoxin Content

NMT 5EU/ml

Storage and Shelf Life

1. All the powdered media and prepared liquid culture media should be stored at 2-8ºC. Use before the expiry date. In spite of above recommended storage condition, certain powdered medium may show some signs of deterioration /degradation in certain instances. This can be indicated by change in colour, change in appearance and presence of particulate matter and haziness after dissolution.
2. Preparation of concentrated medium is not recommended since free base amino acids and salt complexes having low solubility may precipitate in concentrated medium.
3. pH and sodium bicarbonate concentration of the prepared medium are critical factors affecting cell growth. This is also influenced by amount of medium and volume of culture vessel used (surface to volume ratio). For example, in large bottles, such as Roux bottles pH tends to rise perceptibly as significant volume of carbon dioxide is released. Therefore, optimal conditions of pH sodium bicarbonate concentration, surface to volume ratio must be determined for each cell type. We recommend stringent monitoring of pH. If needed, pH can be adjusted by using sterile 1N HCl or 1N NaOH or by bubbling in carbon dioxide.
4. If required, supplements can be added to the medium prior to or after filter sterilization observing sterility precautions. Shelf life of the medium will depend on the nature of supplement added to the medium.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
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- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specificatons for identity and performens parameters.