

Technical Information

Nutrient Mixture F-12 Ham

With 20mM HEPES buffer and Sodium bicarbonate Without L-Glutamine 1X Liquid Cell Culture Medium

Product Code: AL1184

Application:-Ham's Nutrient Mixtures were originally developed for single cell plating of near diploid Chinese hamster ovary (CHO) cells and mouse L-cells. Both F-10 and F-12 are formulated for use with or without serum, depending on the type of cells being cultured.

Ham's Nutrient Mixtures F-12 was originally designed for serial propagation and cloning of two CHO cell lines namely, CHD-3 and CHL-1 and mouse L-cells. It is the medium of choice for the growth of cells of rodent origin and for cloning of myeloma and hybridoma cells. This medium is also the medium of choice for clonal toxicity assay using CHO cells.

AL1184 is Nutrient Mixture F-12 Ham with sodium bicarbonate and 20mM HEPES buffer. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. It does not contain L-glutamine. 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 dehydrate	44.100
Copper sulphate pentahydrate	0.0025
Ferric sulphateheptahydrate	0.834
Magnesium sulphate anhydrous	74.640
Potassium chloride	285.000
Potassium phosphate monobasic	83.000
Sodium chloride	7400.000
Sodium phosphate dibasic anhydrous	153.700
Zinc sulphateheptahydrate	0.0288
AMINO ACIDS	
Glycine	7.510
L-Alanine	8.910
L-Arginine hydrochloride	211.000
L-Asparagine anhydrous	15.010
L-Aspartic acid	13.300
L-Cysteine hydrochloride	35.130
L-Glutamic acid	14.700
L-Histidine hydrochloride monohydrate	21.000
L-Isoleucine	2.600
L-Leucine	13.100
L-Lysine hydrochloride	29.300
L-Methionine	4.480
L-Phenylalanine	4.960
L-Proline	11.500
L-Serine	10.500
L-Threonine	3.570
L-Tryptophan	0.600
L-Tyrosine Disodium Salt	2.610

L-Valine	3.500
VITAMINS	
Biotin	0.024
Choline chloride	0.698
D-Ca-Pantothenate	0.715
Folic acid	1.320
Nicotinamide	0.615
Pyridoxine hydrochloride	0.206
Riboflavin	0.376
Thiamine hydrochloride	1.000
Vitamin B12	1.360
i-Inositol	0.541
OTHERS	
D-Glucose	1100.000
HEPES Buffer	4766.000
Hypoxanthine Sodium Salt	4.080
Lipoic acid	0.210
Phenol red Sodium Salt	1.300
Sodium bicarbonate	1200.000
Sodium pyruvate	110.000
Thymidine	0.730

Methodology

1. Add 5.0ml of 200mM L-glutamine (TCL1012) for 1 litre of medium.

Material required but not provided

L-Glutamine solution 200mM (TCL1012)

Quality control

Appearance

Orangish red colored, clear solution

pH without Sodium Bicarbonate

7.00 - 7.60

Osmolality with Sodium Bicarbonate

300.00 - 340.00

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

Store at 2-8°C away from bright light. Shelf life is 18 months. Use before expiry date given on the product label.

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.
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