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Product Specification

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Technical Information

Nutrient Mixture F-12 Ham, Kaighn's Modification

With L-Glutamine and Sodium bicarbonate 1X Liquid Cell Culture Medium

Product Code:AL1106A

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 Mixture F12 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.
Kaighn's modification of Ham's F-12 is a complex formulation of F-12 with increased amounts of amino acids and pyruvate. Salts used in this formulation are as given by Konisberg. This modification favors the growth and differentiation of rat and chicken cells and primary human liver cells.
AL1106A is Nutrient mixture F-12 Ham, Kaighn's modification with L-glutamine 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 dehydrate	135.240
Copper sulphate pentahydrate	0.0025
Disodium hydrogen phosphate	115.020
Ferrous sulphateheptahydrate	0.834
Magnesium chloride anhydrous	49.700
Magnesium sulphate anhydrous	93.700
Potassium chloride	283.290
Potassium dihydrogen phosphates	58.500
odium bicarbonate	2500.000
Sodium chloride	7597.200
Zinc sulphatehepthydrate	0.1437
AMINO ACIDS	
Glycine	15.010
L-Alanine	17.800
L-Arginine hydrochloride	421.400
L-Asparagine monohydrate	30.020
L-Aspartic acid	26.620
L-Cystine hydrochloride heptahydrate	70.240
L-Glutamic acid	29.420
L-Glutamine	292.200
L-Histidine hydrochloride monohydrate	41.920
L-Isoleucine	7.872
L-Leucine	26.240
L-Lysine hydrochloride	73.040
L-Methionine	8.960
L-Phenylalanine	9.920
L-Proline	69.060

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L-Serine	21.020
L-Threonine	23.820
L-Tryptophan	4.080
L-Tyrosine disodium salt	13.500
L-Valine	23.420
VITAMINS	
Biotin	0.073
Choline chloride	13.960
D-Ca-Pantothenate	0.477
Folic acid	1.320
Niacinamide	0.037
Pyridoxine hydrochloride	0.061
Riboflavin	0.0376
Thiamine hydrochloride	0.337
Vitamin B12	1.355
i-Inositol	18.020
OTHERS	
D-Glucose	1260.000
Hypoxanthine sodium salt	4.083
Lipoic acid	0.2063
Phenol red sodium salt	3.318
Putrescine dihydrochlorides	0.322
Sodium pyruvate	220.000
Thymidine	0.726

Quality Control

Appearance

Orangish red colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H_2O

320.00 -360.00

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

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 12 months. Use before expiry date given on the product label.

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Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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