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Technical Datasheet

Nutrient Mixture F-10 Ham

With 20mM HEPES buffer and Sodium bicarbonate
Without L-Glutamine

Product Code: AL184

Product Description:

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 F-10 was designed for clonal growth of CHO cells and chick embryo cells under serum free conditions. It is now widely used for culturing a variety of cells which include human diploid cells and white blood cells for chromosomal analysis and primary explants of rat, rabbit and chicken tissues.

AL184 is Nutrient Mixture F-10 Ham with sodium bicarbonate and 20mM HEPES buffer. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37ºC 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/L
INORGANIC SALTS	
Calcium chloride dihydrate	44.100
Copper sulphate pentahydrate	0.0025
Ferric sulphate heptahydrate	0.834
Magnesium sulphate anhydrous	74.640
Potassium chloride	285.000
Potassium phosphate monobasic	83.000
Sodium chloride	7400.000
Sodium bicarbonate	1200.00
Sodium phosphate dibasic anhydrous	153.700
Zinc sulphate heptahydrate	0.0288
AMINO ACIDS	
Glycine	7.510
L-Alanine	8.910
L-Arginine hydrochloride	211.000
L-Asparagine monohydrate	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 pyruvate	110.000
Thymidine	0.730

Directions:

1. Add 10ml of 200mM L-glutamine (TCL012) for 1 litre of medium.

Material required but not provided:

L-Glutamine solution 200mM (TCL012)

Quality Control:

Appearance

Orangish red colored, clear solution

pH

7.00 -7.60

Osmolality in mOsm/Kg H_2O

300.00 -340.00

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.

Endotoxin Content

NMT 1EU/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.