



## Nutrient Mixture F-10 Ham

With 10 mM HEPES buffer, L-Glutamine and 1.2 g/L Sodium bicarbonate  
Without Phenol red

**Product Code: AL290A**

### 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 F10 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.

AL290A is Nutrient Mixture F-10 Ham with L-glutamine, 10mM HEPES buffer and sodium bicarbonate. 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 phenol red. 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
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	44.100
Copper sulphate pentahydrate	0.0025
Ferric sulphate heptahydrate	0.834
Magnesium sulphate anhydrous	74.730
Potassium chloride	285.000
Potassium dihydrogen phosphate	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 anhydrous	15.010
L-Aspartic acid	13.300
L-Cysteine dihydrochloride	35.130
L-Glutamic acid	14.700
L-Glutamine	146.000
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	2383.000
Hypoxanthine Sodium Salt	4.080
Lipoic acid	0.210
Sodium pyruvate	110.000
Thymidine	0.730

## **Quality Control:**

### **Appearance**

Colorless, clear solution

### **pH**

7.00 -7.60

### **Osmolality in mOsm/Kg H<sub>2</sub>O**

290.00 -330.00

### **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 12 months.

Use before expiry date given on the product label.

### **Disclaimer :**

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