

# Dulbecco's Modified Eagle Medium/ Nutrient Mixture F-12 Ham (DMEM/ F12, 1:1 Mixture)

**With L-Glutamine, 15mM HEPES buffer and Sodium bicarbonate  
Without Phenol red and Trace elements**

**Product Code: AL215A**

## Product Description:

Dulbecco's Modified Eagle Medium / Nutrient Mixture F12 Ham (DMEM/F12, 1:1 mixture) was originally formulated for rat neuroblastoma cells and MDCK cells. The mixture is extremely nutritious and supports growth of a wide variety of cells including certain epithelial, endothelial and granulosa cells.

AL215A is DMEM/Nutrient Mixture F-12 Ham with L-glutamine, sodium bicarbonate and 15mM HEPES buffer. It does not contain phenol red and trace elements. 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. 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	154.500
Copper sulphate pentahydrate	0.0013
Disodium hydrogen phosphate	71.020
Ferric nitrate nonahydrate	0.050
Ferrous sulphate heptahydrate	0.417
Magnesium chloride hexahydrate	61.200
Magnesium sulphate anhydrous	48.840
Potassium chloride	311.800
Sodium bicarbonate	1200.000
Sodium chloride	6996.000
Sodium dihydrogen phosphate anhydrous	54.300
Zinc sulphate heptahydrate	0.432
<b>AMINO ACIDS</b>	
Glycine	18.750
L-Alanine	4.450
L-Arginine hydrochloride	147.500

L-Asparagine monohydrate	7.500
L-Aspartic acid	6.650
L-Cysteine hydrochloride monohydrate	17.560
L-Cystine dihydrochloride	31.290
L-Glutamic acid	7.350
L-Glutamine	365.000
L-Histidine hydrochloride monohydrate	31.480
L-Isoleucine	54.470
L-Leucine	59.050
L-Lysine hydrochloride	91.250
L-Methionine	17.240
L-Phenylalanine	35.480
L-Proline	17.250
L-Serine	26.250
L-Threonine	53.450
L-Tryptophan	9.020
L-Tyrosine disodium salt	48.100
L-Valine	52.850
<b>VITAMINS</b>	
Choline chloride	8.980
D-Biotin	0.0035
D-Ca-Pantothenate	2.240
Folic acid	2.660
Niacinamide	2.020
Pyridoxal hydrochloride	2.000
Pyridoxine hydrochloride	0.031
Riboflavin	0.219
Thiamine hydrochloride	2.170
Vitamin B12	0.680
myo-Inositol	12.600
<b>OTHERS</b>	
D-Glucose	3151.000
DL-Thioctic acid	0.105
HEPES buffer	3574.500
Hypoxanthine sodium salt	2.400
L-Glutamine	365.000
Linoleic acid	0.042
Putrescine hydrochloride	0.081
Sodium pyruvate	110.000
Thymidine	0.365

## **Quality Control:**

### **Appearance**

Clear solution, with yellow tinge.

### **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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