

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

With 15mM HEPES buffer, Sodium bicarbonate and Trace elements  
Without L-Glutamine and Phenol red  
1X Liquid Cell Culture Medium

**Product Code: AL187**

## 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.

AL187 is DMEM/Nutrient Mixture F-12 Ham with sodium bicarbonate, 15mM HEPES buffer 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. It does not contain L-glutamine and 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>	
Ammonium metavanadate	0.00058
Ammonium molybdate tetrahydrate	0.00618
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
Manganese sulphate	0.000151
Nickel chloride	0.00012
Potassium chloride	311.800
Sodium bicarbonate	1200.000
Sodium chloride	6996.000
Sodium dihydrogen phosphate	54.300
Sodium metasilicate nonhydrate	0.0142
Sodium selenite	0.00519
Stannous chloride dihydrate	0.00011
Zinc sulphate heptahydrate	0.432

## AMINO ACIDS

Glycine	18.750
L-Alanine	4.450
L-Arginine hydrochloride	147.500
L-Asparagine monohydrate	7.500
L-Aspartic acid	6.650
L-Cysteine dihydrochloride	17.560
L-Cystine hydrochloride monohydrate	31.290
L-Glutamic acid	7.350
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

## VITAMINS

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

## OTHERS

D-Glucose	3151.000
DL-Thioctic acid	0.105
HEPES buffer	3574.000
Hypoxanthine	2.400
Linoleic acid	0.042
Putrescine hydrochloride	0.081

Sodium pyruvate	110.000
Thymidine	0.365

### **Directions :**

1. Add 12.5ml of 200mM L-glutamine (TCL012) for 1 litre of medium.

### **Material required but not provided :**

L-Glutamine solution 200mM (TCL012)

### **Quality Control:**

#### **Appearance**

Red colored, 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 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.

Revision : 1 / 2011

#### **Disclaimer :**

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