

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

With 15mM HEPES buffer and Sodium bicarbonate  
Without L-Glutamine and Trace elements

**Product Code: AL140**

## Product Description:

Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12 Ham (DMEM/F-12, 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.

AL140 is DMEM/Nutrient Mixture F-12 Ham with 15mM 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 L-glutamine and trace elements. 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 anhydrous	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	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- Cystine dihydrochloride	31.290
L-Cysteine hydrochloride monohydrate	17.560
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
<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
Linoleic acid	0.042
Phenol red sodium salt	8.630
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**

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.

**Disclaimer :**

Revision : 04/2022

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.