



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

With 15mM HEPES buffer, L-Glutamine, Sodium bicarbonate and Trace elements

**Product Code: AL139A**

### 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.

AL139A is DMEM/Nutrient Mixture F-12 Ham with L-Glutamine, 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. 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 ninahydrate      | 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 nonahydrate | 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 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    |
| Linoleic acid                         | 0.042    |

|                          |         |
|--------------------------|---------|
| Phenol red sodium salt   | 8.630   |
| Putrescine hydrochloride | 0.081   |
| Sodium pyruvate          | 110.000 |
| Thymidine                | 0.365   |

## 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 12 months.

Use before expiry date given on the product label.

### Disclaimer :

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