

## Ham's F-12 Medium

Cat. No.	Pack Size
MTE0349	500 ml

For *in vitro* use only

### Reagent Composition:

- 1802 mg / litre of D-glucose, anhydrous
- 146.2 mg / litre L-glutamine,
- 1.2 mg / litre Phenol Red

### Applications:

Serum-free growth of Chinese Hamster Ovary cells (CHO).

- Cultivation of different kinds of mammalian cells (rat-hepatocytes, rat-prostate cells) with substitution of serum.

### Description:

Ham's Nutrient Mixtures were originally developed to support growth of several clones of Chinese hamster ovary (CHO) cells, with or without serum supplementation, as well as clones of HeLa and mouse L-cells. **Ham's F-12** was developed for growth of primary rat hepatocytes, rat prostate epithelial cells and for use in a clonal toxicity assay using CHO cells.

**Ham's F-12** is preferred by many in the culture of cells of rodent origin. It has also shown excellent results as a cloning medium for myeloma and hybridoma cells.

### Formulation

Formulation	mg / litre
<b>Inorganic Salts</b>	
Calcium Chloride anhydrous	33.290
Ferric(II)-Sulphate • 7H <sub>2</sub> O	0.834
Potassium Chloride	223.600
Cupric(II)-Sulphate • 5H <sub>2</sub> O	0.003
Magnesium Chloride • 6H <sub>2</sub> O	122.000
Sodium Chloride	7599.000
Di-Sodium Hydrogen Phosphate	142.040
Zinc Sulphate • 7H <sub>2</sub> O	0.863
Sodium Hydrogen Carbonate	1176.000
<b>Amino Acids</b>	
L-Alanine	8.910
L-Arginine • HCl	210.700
L-Asparagine • H <sub>2</sub> O	15.000
L-Aspartic Acid	13.310
L-Cysteine • HCl • H <sub>2</sub> O	35.120
L-Glutamic Acid	14.700
L-Glutamine	146.200
Glycine	7.500
L-Histidine • HCl • H <sub>2</sub> O	20.960
L-Isoleucine	3.940
L-Leucine	13.100
L-Lysine • HCl	36.540
L-Methionine	4.480

### Formulation (continued)

Formulation	mg / litre
<b>Amino Acids (continued)</b>	
L-Phenylalanine	4.960
L-Proline	34.530
L-Serine	10.500
L-Threonine	11.900
L-Tryptophan	2.040
L-Tyrosine	5.440
L-Valine	11.700
<b>Vitamins</b>	
D(+)-Biotin	0.007
D-Calcium Pantothenate	0.480
Choline Chloride	13.960
Folic Acid	1.320
Myo-Inositol	18.020
Nicotinamide	0.037
Pyridoxine • HCl	0.062
Riboflavin	0.038
Thiamine • HCl	0.340
Vitamin B12	1.360
<b>Other Components</b>	
D-Glucose anhydrous	1802.000
Hypoxanthine	4.080
Linoleic Acid	0.084
DL- $\alpha$ -Lipoic Acid	0.210
Sodium Pyruvate	110.100
Phenol Red	1.200
Putrescine • 2HCl	0.161
Deoxythymidine	0.730

**pH:** 7.0 – 7.8

**Storage:** +2°C to +8°C

**Cell culture:** Tested

**Sterility:** Tested

### Safety warnings and precautions:

Only persons trained in laboratory techniques should handle this product and its components. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

*Some applications this product is used in may require a license, which is not provided by the purchase of this product. Users should obtain the license if required.*

## Related products:

Cat. No.	Product	Pack Size
MTE0347	<b>IMDM</b> , (wo L-Glutamine, w 25mM HEPES, wo sodium hydrogen pyruvate)	500 ml
MTE0348	<b>DMEM</b> , (w 4,5g/L Glucose, wo L-Glutamine, wo sodium pyruvate, wo sodium hydrogen pyruvate)	500 ml
MTE0350	<b>Glasgow-MEM</b> , (w L-Glutamine, wo Tryptose/Phosphate-Boullion, wo sodium hydrogen pyruvate)	500 ml
MTE0352	<b>Penicillin/Streptomycin</b> (10000IU/10000 ug/ml, 100x)	100 ml
MTE0353	<b>L-Glutamine</b> 200mM	100 ml
MTE0354	<b>Cell freezing mix</b> (FCS/DMSO)	50 ml
MTE0355	<b>NEA</b> (Non-essential amino acids)	100 ml
MTE0356	<b>Sodium Pyruvate</b> 100mM	100 ml
MTE0357	<b>1X PBS</b> (without Ca <sup>+2</sup> , Mg <sup>+2</sup> )	500 ml
MTE0358	<b>Trypsin/EDTA</b> (0.05% / 0.02% in PBS)	100 ml