DMEM/F-12 with 15 mM HEPES

Dulbecco's Modified Eagle's Medium/Nutrient Ham's Mixture F-12 (DMEM/F-12) with 15 mM HEPES buffer

Catalog #36254 500 mL

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
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Product Description

Dulbecco's Modified Eagle's Medium/Nutrient Ham's Mixture F-12 (DMEM/F-12) with 15 mM HEPES is recommended for a wide variety of cell culture applications. Selection of suitable nutrient medium is dependent on cell type, culture conditions, and degree of chemical definition required for the cell culture application. This product has been pre-screened for use with other reagents of the ES-Cult™ product line for maintenance culture of embryonic stem (ES) cells in the undifferentiated state.

See Formulation on page 2 for a full list of components.

Properties

Storage: Store at 2 - 8°C.

Shelf Life: Stable for 12 months from date of manufacture (MFG) on label.

Directions for Use

This product contains the labile amino acid L-glutamine, which has a half-life of approximately 1 month when stored at 2 - 8°C. For certain cell culture applications, medium stored for greater than 2 months following the date of manufacture should be supplemented with additional L-glutamine. Add 5 mL of 200 mM L-Glutamine (Catalog #07100) to 500 mL of DMEM/F-12 with 15 mM HEPES to achieve a final concentration of 2 mM.

NOTE: This product does not contain antibiotics. If desired, add antibiotics and use within 1 week.

Formulation

INORGANIC SALTS	mg/L
$CaCl_2$ (anhydrous)	116.61
$CuSO_4 \bullet 5H_2O$	0.0013
$Fe(NO_3)3 \bullet 9H_2O$	0.05
$FeSO_4 \bullet 7H_2O$	0.417
KCl	311.8
$MgCl_2$ (anhydrous)	28.61
$MgSO_4$ (anhydrous)	48.84
NaCl	6999.5
Na_2HPO_4 (anhydrous)	71.02
$NaH_2PO_4 \bullet H_2O$	62.5
$ZnSO_4 \bullet 7H_2O$	0.43
AMINO ACIDS	**mg/L**
L-Alanine	4.45
L-Arginine • HCl	147.5
L-Asparagine • H_2O	7.501
L-Aspartic Acid	6.65
L-Cysteine • HCl • H_2O	17.56
L-Cystine • 2HCl	31.29
L-Glutamic Acid	7.35
L-Glutamine	365
Glycine	18.75
L-Histidine • HCl • H_2O	31.48
L-Isoleucine	54.47
L-Leucine	59.05
L-Lysine • HCl	91.26
L-Methionine	17.24
L-Phenylalanine	35.48
L-Proline	17.25
L-Serine	26.25
L-Threonine	53.45
L-Tryptophan	9.02
L-Tyrosine 2Na • $2H_2O$	55.79
L-Valine	52.85
VITAMINS	**mg/L**
D-Biotin	0.0036
D-Ca Pantothenate	2.24
Choline Chloride	8.98
Folic Acid	2.65
Myo-Inositol	12.6
Niacinamide	2.02
Pyridoxine • HCl	2.03
Riboflavin	0.22
Thiamine • HCl	2.17
Vitamin B-12	0.68
OTHER	**mg/L**
D-Glucose	3151
HEPES	3575
Hypoxanthine • 2Na	2.7
Linoleic Acid	0.04
DL-alpha Lipoic Acid	0.105
Phenol Red •Na	8.6
Putrescine • 2HCl	0.08
Sodium Bicarbonate	1200
Sodium Pyruvate	55
Thymidine	0.37