




Solutions to support your pre-clinical phase [Discover now >](#)[Home](#) > [Media Formulation](#)Technique  [Media](#)

12500 - DMEM/F-12, powder

Catalog Number(s)

12500062 , 12500096

Components	Molecular Weight	Concentration (mg/L)	mM
Amino Acids			
Glycine	75.0	18.75	0.25
L-Alanine	89.0	4.45	0.049999997
L-Arginine hydrochloride	211.0	147.5	0.69905216
L-Asparagine-H2O	150.0	7.5	0.05
L-Aspartic acid	133.0	6.65	0.05
L-Cysteine hydrochloride-H2O	176.0	17.56	0.09977272
L-Cystine 2HCl	313.0	31.29	0.09996805
L-Glutamic Acid	147.0	7.35	0.05
L-Glutamine	146.0	365.0	2.5
L-Histidine hydrochloride-H2O	210.0	31.48	0.14990476
L-Isoleucine	131.0	54.47	0.41580153
L-Leucine	131.0	59.05	0.45076334
L-Lysine hydrochloride	183.0	91.25	0.4986339
L-Methionine	149.0	17.24	0.11570469
L-Phenylalanine	165.0	35.48	0.2150303
L-Proline	115.0	17.25	0.15
L-Serine	105.0	26.25	0.25
L-Threonine	119.0	53.45	0.44915968
L-Tryptophan	204.0	9.02	0.04421569
L-Tyrosine disodium salt dihydrate	261.0	55.79	0.21375479
L-Valine	117.0	52.85	0.4517094
Vitamins			
Biotin	244.0	0.0035	1.4344263E-5
Choline chloride	140.0	8.98	0.06414285
D-Calcium pantothenate	477.0	2.24	0.0046960167
Inositol	441.0	2.65	0.0060090707

Components	Solutions to support your pre-clinical phase Discover now		Concentration (mg/L)	mM
Niacinamide		122.0	2.02	0.016557377  
Pyridoxine hydrochloride		206.0	2.013	0.009771844
Riboflavin		376.0	0.219	5.824468E-4
Thiamine hydrochloride		337.0	2.17	0.0064391694
Vitamin B12		1355.0	0.68	5.0184503E-4
i-Inositol		180.0	12.6	0.07
Inorganic Salts				
Calcium Chloride (CaCl2) (anhyd.)		111.0	116.6	1.0504504
Cupric sulfate (CuSO4-5H2O)		250.0	0.0013	5.2E-6
Ferric Nitrate (Fe(NO3)3*9H2O)		404.0	0.05	1.2376238E-4
Ferric sulfate (FeSO4-7H2O)		278.0	0.417	0.0015
Magnesium Chloride (anhydrous)		95.0	28.64	0.30147368
Magnesium Sulfate (MgSO4) (anhyd.)		120.0	48.84	0.407
Potassium Chloride (KCl)		75.0	311.8	4.1573334
Sodium Chloride (NaCl)		58.0	6995.5	120.61207
Sodium Phosphate dibasic (Na2HPO4) anhydrous		142.0	71.02	0.50014085
Sodium Phosphate monobasic (NaH2PO4-H2O)		138.0	62.5	0.45289856
Zinc sulfate (ZnSO4-7H2O)		288.0	0.432	0.0015
Other Components				
D-Glucose (Dextrose)		180.0	3151.0	17.505556
Hypoxanthine Na		159.0	2.39	0.015031448
Linoleic Acid		280.0	0.042	1.4999999E-4
Lipoic Acid		206.0	0.105	5.097087E-4
Phenol Red		376.4	8.1	0.021519661
Putrescine 2HCl		161.0	0.081	5.031056E-4
Sodium Pyruvate		110.0	55.0	0.5
Thymidine		242.0	0.365	0.0015082645

Reference:

1. Dulbecco, R. and Freeman, G., (1959) Plaque formation by the polyoma virus. *Virology* 8:396.
2. Ham, R.G., (1965) Clonal growth of mammalian cells in a chemically defined synthetic medium. *Proc. Natl. Acad. Sci.*, 53:288.
3. Morton, H.J. (1970) A survey of commercially available tissue culture media. *In Vitro* 6(2):89.
4. ...n, J.D., Freeman, G., Vogt, M., et al., (1960) The nucleic acid of polyoma virus. *Virology* 12:185.

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