BME Cell Culture Media

component (mg/L)	MD100	MD101	MD102	MD103
$CaCl_2$	200	140	200	200
KCl	400	400	400	400
$MgSO_4$	97.67	97.67	—	97.67
KH_2PO_4	—	60	—	—
NaCl	6800	8000	6800	6800
MgCl2	—	—	93.68	—
Na_2HPO_4	—	47.88	—	—
NaH_2PO_4	121.74	—	121.74	121.74
L-Arginine Hydrochloride	21	21	21	21
L-Cysteine Hydrochloride	15.65	15.65	15.65	15.65
L-Glutamine	292	292	292	—
L-Histidine Hydrochloride	15	15	15	15
L-Isoleucine	26	26	26	26
L-Leucine	26	26	26	26
L-Lysine Hydrochloride	36.47	36.47	36.47	36.47
L-Methionine	7.5	7.5	7.5	7.5
L-Phenylalanine	16.5	16.5	16.5	16.5
L-Threonine	24	24	24	24
L-Tryptophan	4	4	4	4
L-Tyrosine	18	18	18	18
L-Valine	23.5	23.5	23.5	23.5
D-Glucose	1000	1000	1000	1000
Phenol	10	10	10	6
$CH_2(COONa)_2$	—	—	—	100
$CH_2(COOH)_2$	—	—	—	75
Vitamin H	1	1	1	1
D-Vitamin K3	1	1	1	1
Choline Bitartrate	—	—	—	1.8
Choline Chloride	1	1	1	—
Folic Acid	1	1	1	1
i-Insotiol	2	2	2	2
Nicotinamide	1	1	1	1
Pyridoxal HCL	1	1	1	1
Riboflavin	0.1	0.1	0.1	0.1
Thiamine HCl	1	1	1	1
pH(before adjustment with $NaHCO_3$)	5.9±0.3	6.8±0.3	5.9±0.3	4.2±0.3
pH(after adjustment with $NaHCO_3$)	7.7±0.3	7.4±0.3	7.6±0.3	7.3±0.3
Osmolality(before adjustment with $NaHCO_3$)	250±5%	280±5%	245±5%	243±5%
Osmolality(after adjustment with $NaHCO_3$)	300±5%	290±5%	285±5%	295±5%

DMEM Cell Culture Media

component (mg/L)	MD200	MD201	MD202	MD203	MD204
$CaCl_2$	200	200	200	200	200
$Fe(NO3)_3 \cdot 9H_2O$	0.1	0.1	0.1	0.1	0.1
KCl	400	400	400	400	400
$MgSO_4$	97.67	97.67	97.67	97.67	97.67
NaCl	6400	6400	6400	6400	4400
KH_2PO_4	108.7	108.7	108.7	108.7	108.7
L-Arginine Hydrochloride	84	84	84	84	84
L-Cystine Hydrochloride	63	63	63	63	63
L-Glutamine	584	584	584	584	584
Glycine	30	30	30	30	30
L-Histidine Hydrochloride	42	42	42	42	42
L-Isoleucine	105	105	105	105	105
L-Leucine	105	105	105	105	105
L-Lysine Hydrochloride	146	146	146	146	146
L-Methionine	30	30	30	30	30
L-Phenylalanine	66	66	66	66	66
L-serine	42	42	42	42	42
L-Threonine	95	95	95	95	95
L-Tryptophan	16	16	16	16	16
L-Tyrosine	72	72	72	72	72
L-Valine	94	94	94	94	94
D-Glucose	1000	4500	4500	4500	4500
Phenol	15	15	15	—	15
Sodium Pyruvate	110	—	110	—	—
HEPES	—	—	—	—	5958
D-Vitamin K3	4	4	4	4	4
Choline Chloride	4	4	4	4	4
Folic Acid	4	4	4	4	4
i-Insotiol	7.2	7.2	7.2	7.2	7.2
Nicotinamide	4	4	4	4	4
Pyridoxal HCL	4	4	4	4	4
Riboflavin	0.4	0.4	0.4	0.4	0.4
Thiamine HCl	4	4	4	4	4
pH(before adjustment with $NaHCO_3$)	6.3±0.3	6.3±0.3	6.3±0.3	6.3±0.3	5.7±0.3
pH(after adjustment with $NaHCO_3$)	7.8±0.3	7.8±0.3	7.8±0.3	7.8±0.3	7.0±0.3
Osmolality(before adjust. with $NaHCO_3$)	250±5%	260±5%	260±5%	260±5%	220±5%
Osmolality(after adjustment with $NaHCO_3$)	316±5%	335±5%	335±5%	335±5%	300±5%

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DMEM/F12 Cell Culture Media

component (mg/L)	MD206	MD207	component (mg/L)	MD206	MD207
$CaCl_2$	116.6	116.6	L-Tryptophan	9.02	9.02
$CuCl_2$	0.0013	0.0013	L-Tyrosine	38.4	38.4
$Fe(NO3)_3 \cdot 9H_2O$	0.05	0.05	L-Valine	52.85	52.85
$FeSO_4 \cdot 7H_2O$	0.417	0.417	D-Glucose	3151	3151
KCl	311.8	311.8	HEPES	3574.5	—
$MgCl_2$	28.64	28.64	Hypoxanthine	2	2
$MgSO_4$	48.84	48.84	Linoleic Acid	0.042	0.042
NaCl	6999.5	6999.5	Lipoic Acid	0.105	0.105
NaH_2PO_4	54.35	54.35	Phenol	8.1	8.1
Na_2HPO_4	71.02	71.02	Putrescine,2HCL	0.081	0.081
$ZnSO_4 \cdot 7H_2O$	0.432	0.432	Sodium Pyruvate	55	55
L-Arginine Hydrochloride	147.5	147.5	Vitamin H	0.0035	0.0035
L-Cysteine Hydrochloride	31.29	31.29	D-Vitamin K3	2.24	2.24
L-Glutamine	365	365	Choline Chloride	8.98	8.98
Glycine	18.75	18.75	Folic Acid	2.65	2.65
L-Histidine Hydrochloride	31.48	31.48	i-Insotiol	12.6	12.6
L-Isoleucine	54.47	54.47	Nicotinamide	2.02	2.02
L-Leucine	59.05	59.05	Pyridoxal HCL	2	2
L-Lysine Hydrochloride	91.25	91.25	Pyridoxine HCl	0.031	0.031
L-Methionine	17.24	17.24	Riboflavin	0.219	0.219
L-Phenylalanine	35.48	35.48	Thiamine HCl	2.17	2.17
L-serine	26.25	26.25	Thymidine	0.365	0.365
L-Threonine	53.45	53.45	Vitamin B_{12}	0.68	0.68
L-Alanine	4.45	4.45			
L-Asparagine	7.5	7.5	pH(before adjustment with $NaHCO_3$)	5.8±0.3	5.8±0.3
L-Aspartic Acid	6.65	6.65	pH(after adjustment with $NaHCO_3$)	6.8±0.3	6.9±0.3
L-Cysteine Hydrochloride	17.56	17.56	Osmolality(before adjustment with $NaHCO_3$)	279±5%	277±5%
L-Glutamic Acid	7.35	7.35	Osmolality(after adjust. with $NaHCO_3$)	299±5%	300±5%
L-Proline	17.25	17.25			

Fischer's Cell Culture Media

Component (mg/L)	MD300	Component (mg/L)	MD300
$CaCl_2$	68.7	L-Tyrosine	59.5
KCl	400	L-Valine	70
$MgCl_2$	46.9	D-Glucose	1000
NaCl	8000	Phenol	5
NaH_2PO_4	60	Vitamin H	0.01
Na_2HPO_4	59.84	D-Vitamin K3	0.5
L-Arginine Hydrochloride	18.6	Choline Chloride	1.5
L-Aspartine	10	Folic Acid	10
L-Cystine Hydrochloride	26.2	i-Insotiol	1.5
L-Glutamine	204	Nicotinamide	0.5
L-Histidine Hydrochloride	66	Pyridoxal HCL	0.5
L-Isoleucine	75	Riboflavin	0.5
L-Leucine	30	Thiamine HCl	1
L-Lysine Hydrochloride	50		
L-Methionine	100	pH(before adjustment with $NaHCO_3$)	6.8±0.3
L-Phenylalanine	60	pH(after adjustment with $NaHCO_3$)	7.7±0.3
L-serine	15	Osmolality(before adjustment with $NaHCO_3$)	285±5%
L-Threonine	30	Osmolality(after adjustment with $NaHCO_3$)	300±5%
L-Tryptophan	10		

IMDM Cell Culture Media

Component (mg/L)	MD400	Component (mg/L)	MD400
$CaCl_2$	165	L-Threonine	95
KCl	330	L-Tryptophan	16
KNO_3	0.076	L-Tyrosine	71.5
$MgSO_4$	97.67	L-Valine	94
NaCl	4505	D-Glucose	4500
NaH_2PO_4	108.7	Phenol	15
	0.0173	HEPES	5958
L-Alanine	25	Sodium Pyruvate	110

L-Aspartine	25	Nicotinamide	4
L-Aspartic Acid	30	Pyridoxal HCL	4
L-Cystine Hydrochloride	91.24	D-Vitamin K3	4
L-Glutamic Acid	75	Riboflavin	0.4
L-Glutamine	584	Choline Chloride	4
Glycine	30	Thiamine HCl	4
L-Histidine Hydrochloride	42	Folic Acid	4
L-Isoleucine	105	i-Insotiol	7.2
L-Leucine	105	Vitamin B_{12}	0.013
L-Lysine Hydrochloride	146		
L-Methionine	30	pH(before adjustment with $NaHCO_3$)	4.9±0.3
L-Phenylalanine	66	pH(after adjustment with $NaHCO_3$)	7±0.3
L-Proline	40	Osmolality(before adjustment with $NaHCO_3$)	225±5%
L-serine	42	Osmolality(after adjustment with $NaHCO_3$)	276±5%

199 Cell Culture Media

Component (mg/L)	MD500	MD501	Component (mg/L)	MD500	MD501
$CaCl_2$	200.00	140.00	D-Glucose	1000.00	1000.00
$Fe(NO3)_3·9H_2O$	0.70	0.70	Glutathione(reduced)	0.05	0.05
KCl	400.00	400.00	Guanine,HCl	0.30	0.30
$MgSO_4$	97.67	97.67	Hypoxanthine	0.30	0.30
KH_2PO_4	—	60.00	Phenol	20.00	20.00
NaCl	6800.00	8000.00	D-Ribose	0.50	0.50
NaH_2PO_4	121.74	—	CH_3COONa	50.00	50.00
Na_2HPO_4	—	47.70	Thymine	0.30	0.30
L-Alanine	25.00	25.00	Tween 80	20.00	20.00
L-Arginine Hydrochloride	70.00	70.00	Uracil	0.30	0.30
L-Aspartic Acid	30.00	30.00	Xanthine	0.30	0.30
L-Cysteine Hydrochloride	0.11	0.11	Vitamin C	0.05	0.05
L-Cystine Hydrochloride	26.00	26.00	Vitamin E	0.01	0.01
L-Glutamic Acid	75.00	75.00	Vitamin H	0.01	0.01
L-Glutamine	100.00	100.00	Vitamin D2	0.10	0.10
Glycine	50.00	50.00	D-Vitamin K3	0.01	0.01

L-Histidine Hydrochloride	21.88	21.88	Choline Chloride	0.50	0.50
L-Hydroxyproline	10.00	10.00	Folic Acid	0.01	0.01
L-Isoleucine	40.00	40.00	i-Insotiol	0.05	0.05
L-Leucine	60.00	60.00	Vitamin K3	0.01	0.01
L-Lysine Hydrochloride	70.00	70.00	Niacin	0.025	0.025
L-Methionine	15.00	15.00	Nicotinamide	0.025	0.025
L-Phenylalanine	25.00	25.00	p-Aminobenzoic Acid	0.05	0.05
L-Proline	40.00	40.00	Pyridoxal HCL	0.025	0.025
L-serine	25.00	25.00	Pyridoxine HCl	0.025	0.025
L-Threonine	30.00	30.00	Riboflavin	0.01	0.01
L-Tryptophan	10.00	10.00	Thiamine HCl	0.01	0.01
L-Tyrosine	40.00	40.00	Vitamin A Acetate	0.14	0.14
L-Valine	25.00	25.00			
Adenine Sulfate	10.00	10.00	pH(before adjustment with $NaHCO_3$)	4.2±0.3	4.6±0.3
Adenosine Monophosphate, Na	0.20	0.20	pH(after adjustment with $NaHCO_3$)	7.3±0.3	6.9±0.3
Adenosine Triphosphate, 2Na	1.00	1.00	Osmolality(before adjustment with $NaHCO_3$)	250±5%	285±5%
Cholesterol	0.20	0.20	Osmolality(after adjustment with $NaHCO_3$)	288±5%	300±5%
Deoxyribose	0.50	0.50			

MEM Cell Culture Media

Component (mg/L)	MD600	MD601	MD602	MD603	MD604	MD605	MD606	MD607	MD608
$CaCl_2$	200	140	—	200	140	200	—	200	200
KCl	400	400	400	400	400	400	400	400	400
$MgSO_4$	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67	97.67
KH_2PO_4	—	60	—	—	60	—	—	—	—
NaCl	6800	8000	6800	6800	8000	6800	6800	6800	6800
NaH_2PO_4	121.74	—	121.74	121.74	—	121.74	121.74	121.74	—
Na_2HPO_4	—	47.88	—	—	47.88	—	—	—	—
L-Alanine	—	—	—	8.9	8.9	—	—	—	—
L-Arginine Hydrochloride	126	126	126	126	126	126	126	126	126
L-Aspartine	—	—	—	13.2	13.2	—	—	—	—
L-Aspartic Acid	—	—	—	13.2	13.2	—	—	—	—
L-Cystine Hydrochloride	31.29	31.29	31.29	31.29	31.29	31	31	31.29	31.29
L-Glutamic Acid	—	—	—	14.7	14.7	—	—	—	—
L-Glutamine	292	292	292	292	292	—	—	292	292

Glycine	—	—	—	7.5	7.5	—	—	—	—
L-Histidine Hydrochloride	42	42	42	42	42	42	42	42	42
L-Isoleucine	52	52	52	52	52	52	52	52	52
L-Leucine	52	52	52	52	52	52	52	—	52
L-Lysine Hydrochloride	72.5	72.5	72.5	72.5	72.5	72.5	72.5	—	72.5
L-Methionine	15	15	15	15	15	15	15	—	15
L-Phenylalanine	32	32	32	32	32	32	32	32	32
L-Proline	—	—	—	11.5	11.5	—	—	—	—
L-serine	—	—	—	10.5	10.5	—	—	—	—
L-Threonine	48	48	48	48	48	48	48	48	48
L-Tryptophan	10	10	10	10	10	10	10	10	10
L-Tyrosine	36	36	36	36	36	36	36	36	36
L-Valine	46	46	46	46	46	46	46	46	46
D-Glucose	1000	1000	1000	1000	1000	1000	1000	1000	1000
Phenol	10	10	10	10	10	6	6	10	10
$CH_2(COONa)_2$	—	—	—	—	—	100	100	—	—
$CH_2(COOH)_2$	—	—	—	—	—	75	75	—	—
D-Vitamin K3	1	1	1	1	1	1	1	1	1
Choline Bitartrate	—	—	—	—	—	1.8	1.8	—	—
Choline Chloride	1	1	1	1	1	—	—	1	1
Folic Acid	1	1	1	1	1	1	1	1	1
i-Insotiol	2	2	2	2	2	2	2	2	2
Nicotinamide	1	1	1	1	1	1	1	1	1
Pyridoxal HCL	1	1	1	1	1	1	1	1	1
Riboflavin	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Thiamine HCl	1	1	1	1	1	1	1	1	1
pH(before adjustment with $NaHCO_3$)	5.9±0.3	6.2±0.3	5.1±0.3	5.1±0.3	6.3±0.3	4.2±0.3	4.3±0.3	5.9±0.3	6.6±0.3
pH(after adjustment with $NaHCO_3$)	7.6±0.3	7.1±0.3	6.8±0.3	7.5±0.3	7.2±0.3	7.3±0.3	6.7±0.3	7.5±0.3	7.8±0.3
Osmolality(before adjustment with $NaHCO_3$)	250±5%	282±5%	265±5%	250±5%	287±5%	251±5%	267±5%	250±5%	240±5%
Osmolality(after adjustment with $NaHCO_3$)	295±5%	285±5%	300±5%	294±5%	300±5%	289±5%	299±5%	290±5%	281±5%

F10 Cell Culture Media

Component (mg/L)	MD700	Component (mg/L)	MD700
$CaCl_2$	33.29	L-Proline	11.50
$CuSO_4 \cdot 5H_2O$	0.0025	L-Tryptophan	0.60
KH_2PO_4	83.00	L-Tyrosine	1.80
Na_2HPO_4	153.70	L-Valine	3.50
$FeSO_4 \cdot 7H_2O$	0.83	D-Glucose	1100.00
KCl	285.00	Hypoxanthine	4.00
$MgSO_4$	74.62	Lipoic Acid	0.20
NaCl	7400.00	Phenol	1.20
$ZnSO_4 \cdot 7H_2O$	0.0288	Thymidine	0.70
L-Arginine Hydrochloride	211.00	Sodium	110.00
L-Glutamine	146.00	Vitamin H	0.024
Glycine	7.51	D-Vitamin K3	0.715
L-Histidine Hydrochloride	23.00	Choline Chloride	0.698
L-Isoleucine	2.60	Folic Acid	1.32
L-Leucine	13.00	i-Insotiol	0.541
L-Lysine Hydrochloride	29.00	Nicotinamide	0.615
L-Methionine	4.48	Pyridoxine HCl	0.206
L-Phenylalanine	5.00	Riboflavin	0.376
L-serine	10.50	Thiamine HCl	1.00
L-Threonine	3.57	Vitamin B_{12}	1.36
L-Alanine	9.00		
L-Aspartine	15.01	pH(before adjustment with $NaHCO_3$)	6.5±0.3
L-Aspartic Acid	13.00	pH(after adjustment with $NaHCO_3$)	7.4±0.3
L-Cysteine Hydrochloride	36.24	Osmolality(before adjustment with $NaHCO_3$)	260±5%
L-Glutamic Acid	14.70	Osmolality(after adjustment with $NaHCO_3$)	285±5%

F12 Cell Culture Media

Component (mg/L)	MD701	Component (mg/L)	MD701
$CaCl_2$	33.22	L-Tyrosine	5.4
$CuSO_4 \cdot 5H_2O$	0.003	L-Valine	11.7
$FeSO_4 \cdot 7H_2O$	0.83	D-Glucose	1802
KCl	223.6	Thymidine	0.7
$MgCl_2 \cdot 6H_2O$	123	Hypoxanthine	4
NaCl	7599	Linoleic Acid	0.084
Na_2HPO_4	142	Lipoic Acid	0.21
$ZnSO_4 \cdot 7H_2O$	0.86	Phenol	1.2
L-Arginine Hydrochloride	211	Putrescine 2HCl	0.16
L-Glutamine	146	Sodium Pyruvate	110

Glycine	7.5	Vitamin H	0.007
L-Histidine Hydrochloride	21	D-Vitamin K3	0.48
L-Isoleucine	4	Choline Chloride	13.96
L-Leucine	13.1	Folic Acid	1.3
L-Lysine Hydrochloride	36.5	i-Insotiol	18
L-Methionine	4.5	Nicotinamide	0.037
L-Phenylalanine	5	Pyridoxine HCl	0.062
L-serine	10.5	Riboflavin	0.038
L-Threonine	11.9	Thiamine HCl	0.34
L-Alanine	8.9	Vitamin B_{12}	1.36
L-Aspartine	15.01		
L-Aspartic Acid	13.3	pH(before adjustment with $NaHCO_3$)	6.7±0.3
L-Cysteine Hydrochloride	35.12	pH(after adjustment with $NaHCO_3$)	7.7±0.3
L-Glutamic Acid	14.7	Osmolality(before adjustment with $NaHCO_3$)	264±5%
L-Proline	34.5	Osmolality(after adjustment with $NaHCO_3$)	297±5%
L-Tryptophan	2.04		

RPMI 1640

component (mg/L)	MD800	MD801	MD802	MD803
$Ca(NO_3)_2{\cdot}4H_2O$	100	100	100	100
KCl	400	400	400	400
$MgSO_4$	48.84	48.84	48.84	48.84
NaCl	6000	6000	6000	5850
Na_2HPO_4	800	800	—	800
L-Arginine	200	200	200	200
L-Asparagine	50	50	50	50
L-Aspartic Acid	20	20	20	20
L-Cystine Hydrochloride	65.15	65.15	65.15	65.15
L-Glutamic Acid	20	20	20	20
L-Glutamine	300	300	300	300
Glycine	10	10	10	10
L-Histidine	15	15	15	15
L-Hydroxyproline	20	20	20	20
L-Isoleucine	50	50	50	50
L-Leucine	50	50	50	50
L-Lysine Hydrochloride	40	40	40	40
L-Methionine	15	15	15	15
L-Phenylalanine	15	15	15	15
L-Proline	20	20	20	20
L-serine	30	30	30	30

L-Threonine	20	20	20	20
L-Tryptophan	5	5	5	5
L-Tyrosine	20	20	20	20
L-Valine	20	20	20	20
D-Glucose	2000	2000	2000	2000
Glutathione(reduced)	1	1	1	1
HEPES	—	—	—	5957.5
Phenol	5	—	—	5
Vitamin H	0.2	0.2	0.2	0.2
D-Vitamin K3	0.25	0.25	0.25	0.25
Choline Chloride	3	3	3	3
Folic Acid	1	1	1	1
i-Insotiol	35	35	35	35
Nicotinamide	1	1	1	1
p-Aminobenzoic Acid	1	1	1	1
Pyridoxine HCl	1	1	1	1
Riboflavin	0.2	0.2	0.2	0.2
Thiamine HCl	1	1	1	1
Vitamin B_{12}	0.005	0.005	0.005	0.005
pH(before adjustment with $NaHCO_3$)	7.5±0.3	7.5±0.3	8.0±0.3	6.7±0.3
pH(after adjustment with $NaHCO_3$)	7.8±0.3	7.8±0.3	8.2±0.3	7.0±0.3
Osmolality(before adjustment with $NaHCO_3$)	237±5%	235±5%	235±5%	260±5%
Osmolality(after adjustment with $NaHCO_3$)	279±5%	280±5%	280±5%	292±5%

Dulbecco's Balance Salt Solution

Component (g/L)	BS901	BS902
$CaCl_2$	—	—
KCl	0.2	0.2
KH_2PO_4	0.2	0.2
NaCl	8	8
$MgCl_2$	0.047	—
Na_2HPO_4	1.15	1.15

pH	7.5±0.3	7.5±0.3
Osmolality	280±5%	285±5%

Earle's Balance Solution

Component (g/L)	BS000	BS001
$CaCl_2$	0.2	0.2
$MgSO_4$	0.09767	0.09767
KCl	0.4	0.4
$NaHCO_3$	—	—
NaCl	6.8	6.8
NaH_2PO_4	0.122	0.122
D-Glucose	1	1
Phenol	0.01	—
pH(before adjustment with $NaHCO_3$)	4.6±0.3	4.6±0.3
pH(after adjustment with $NaHCO_3$)	7.6±0.3	7.6±0.3
Osmolality(before adjustment with $NaHCO_3$)	240±5%	240±5%
Osmolality(after adjustment with $NaHCO_3$)	288±5%	288±5%

Hanks' Balance Salt Solution

Component (g/L)	BS004	BS006	BS008	BS010
$CaCl_2$	0.14	0.14	—	—
$MgSO_4$	0.09767	0.09767	—	—
KCl	0.40	0.40	0.40	0.40
NaCl	8.00	8.00	8.00	8.00
KH_2PO_4	0.06	0.06	0.06	0.06
$NaHCO_3$	—	—	—	—
Na_2HPO_4	0.048	0.048	0.048	0.048
D-Glucose	1.00	1.00	1.00	1.00

Phenol	0.01	—	0.01	
pH(before adjustment with $NaHCO_3$)	6.6±0.3	6.6±0.3	6.7±0.3	6.6±0.3
pH(after adjustment with $NaHCO_3$)	7.4±0.3	7.4±0.3	7.4±0.3	7.3±0.3
Osmolality(before adjustment with $NaHCO_3$)	276±5%	276±5%	270±5%	270±5%
Osmolality(after adjustment with $NaHCO_3$)	284±5%	286±5%	280±5%	280±5%