

HyClone™ classical media

CELL CULTURE

Minimum Essential Medium (MEM) dry powdered media

Component description	MEM/EBSS ¹ w/o L-glutamine, SH30054		MEM/EBSS w/ L-glutamine, w/o phenol red, SH30171		MEM Alpha mod. w/ L-glutamine, w/o ribo-/ deoxyribonucleosides, sodium bicarbonate, SH30219		MEM/HBSS ² w/ L-glutamine, SH30193	
	mg/L	mmol/L	mg/L	mmol/L	mg/L	mmol/L	mg/L	mmol/L
Inorganic salts								
Calcium chloride (anhydrous)	200	1.8021	200	1.8021	200	1.8021	140	1.2615
Ferric nitrate-9H ₂ O	0	0	0	0	0	0	0	0
Potassium chloride	400	5.3655	400	5.3655	400	5.3655	400	5.3655
Magnesium sulfate (anhydrous)	97.67	0.8112	97.67	0.8112	97.67	0.8112	97.67	0.8112
Sodium chloride	6800	116.3587	6800	116.3587	6800	116.3587	8000	136.8925
Potassium phosphate monobasic (anhydrous)	60	0.4409	0	0	0	0	0	0
Sodium phosphate monobasic H ₂ O	140	1.0146	140	1.0146	140	1.0146	0	0
Amino acids								
L-Alanine	0	0	0	0	0	0	0	0
L-Arginine-HCl	126.98	0.6028	126.98	0.6028	126.98	0.6028	126.98	0.6028
L-Asparagine-H ₂ O	0	0	0	0	0	0	0	0
L-Aspartic acid	0	0	0	0	0	0	0	0
L-Cysteine-HCl-H ₂ O	0	0	0	0	0	0	0	0
L-Cystine-2HCl	31.28	0.0999	31.28	0.0999	31.28	0.0999	31.28	0.0999
L-Glutamic acid	0	0	0	0	0	0	0	0
L-Glutamine	0	0	292	1.9979	292	1.9979	292	1.9979
Glycine	0	0	0	0	0	0	0	0
L-Histidine-HCl-H ₂ O	41.88	0.1998	41.88	0.1998	41.88	0.1998	41.88	0.1998
L-Isoleucine	52	0.3964	52	0.3964	52.5	0.4002	52	0.3964
L-Leucine	52	0.3964	52	0.3964	52.4	0.3995	52	0.3964
L-Lysine-HCl	72.47	0.3968	72.47	0.3968	72.47	0.3968	72.47	0.3968
L-Methionine	15	0.1005	15	0.1005	15	0.1005	15	0.1005
L-Phenylalanine	32	0.1937	32	0.1937	32	0.1937	32	0.1937
L-Proline	0	0	0	0	40	0.3474	0	0
L-Serine	0	0	0	0	25	0.2379	0	0
L-Threonine	48	0.403	48	0.403	48	0.403	48	0.403
L-Tryptophan	10	0.049	10	0.049	10	0.049	10	0.049
L-Tyrosine-2Na-2H ₂ O	51.9	0.1987	51.9	0.1987	51.9	0.1987	51.9	0.1987
L-Valine	46	0.3927	46	0.3927	46	0.3927	46	0.3927

¹EBSS = Earle's balanced salt solution

²HBSS = Hank's balanced salt solution

MEM dry powdered media

Component description	MEM/EBSS w/o L-glutamine, SH30054		MEM/EBSS w/ L-glutamine, w/o phenol red, SH30171		MEM Alpha mod. w/ L-glutamine, w/o ribo-/ deoxyribonucleosides, sodium bicarbonate, SH30219		MEM/HBSS w/ L-glutamine, SH30193	
	mg/L	mmol/L	mg/L	mmol/L	mg/L	mmol/L	mg/L	mmol/L
Vitamins								
L-Ascorbic acid	0	0	0	0	50	0.2839	0	0
D-Biotin	0	0	0	0	0.1	0.0004	0	0
Calcium D-pantothenate	1	0.0021	1	0.0021	1	0.0021	1	0.0021
Choline chloride	1	0.0072	1	0.0072	1	0.0072	1	0.0072
Folic acid	1	0.0023	1	0.0023	1	0.0023	1	0.0023
Myo-inositol	2	0.0111	1	0.0056	2	0.0111	2	0.0111
Niacinamide	1	0.0082	1	0.0082	1	0.0082	1	0.0082
Pyridoxal hydrochloride	1	0.0049	1	0.0049	1	0.0049	1	0.0049
Riboflavin	0.1	0.0003	0.1	0.0003	0.1	0.0003	0.1	0.0003
Thiamine-HCl	1	0.003	1	0.003	1	0.003	1	0.003
Vitamin B12	0	0	0	0	1.36	0.001	0	0
Other								
Adenosine	0	0	0	0	0	0	0	0
Cytidine	0	0	0	0	0	0	0	0
D-Glucose (anhydrous)	1000	5.5506	1000	5.5506	1000	5.5506	1000	5.5506
Guanosine	0	0	0	0	0	0	0	0
DL- α -Lipoic acid	0	0	0	0	0.2	0.001	0	0
Phenol red-Na	11	0.0292	0	0	11	0.0292	11	0.0292
Sodium pyruvate	0	0	0	0	110	0.9996	0	0
Thymidine	0	0	0	0	0	0	0	0
2'-Deoxyadenosine-H ₂ O	0	0	0	0	0	0	0	0
2'-Deoxycytidine-HCl	0	0	0	0	0	0	0	0
2'-Deoxyguanosine	0	0	0	0	0	0	0	0
Uridine	0	0	0	0	0	0	0	0
Sodium bicarbonate	Add 2200	Add 26.1873	Add 2200	Add 26.1873	Add 2200	Add 26.1873	Add 2200	Add 26.1873

Component description	MEM/EBSS Autoclavable, SH30327		MEM Alpha mod. w/ L-glutamine, ribo-/ deoxyribonucleosides, SH30007		MEM Glasgow mod. w/ L-glutamine, SH30269	
	mg/L	mmol/L	mg/L	mmol/L	mg/L	mmol/L
Inorganic salts						
Calcium chloride (anhydrous)	200	1.8021	200	1.8021	200	1.8021
Ferric nitrate-9H ₂ O	0	0	0	0	0.1	0.0002
Potassium chloride	400	5.3655	400	5.3655	400	5.3655
Magnesium sulfate (anhydrous)	97.67	0.8112	97.67	0.8112	97.67	0.8112
Sodium chloride	6800	116.3587	6800	116.3587	6400	109.514
Potassium phosphate monobasic (anhydrous)	0	0	0	0	0	0
Sodium phosphate monobasic H ₂ O	140	1.0146	140	1.0146	124	0.8986
Amino acids						
L-Alanine	0	0	25	0.2806	0	0
L-Arginine-HCl	126	0.5981	126.98	0.6028	42	0.1994
L-Asparagine-H ₂ O	0	0	50	0.333	0	0
L-Aspartic acid	0	0	30	0.2254	0	0
L-Cysteine-HCl-H ₂ O	0	0	100	0.5693	0	0
L-Cystine-2HCl	31.28	0.0999	31.28	0.0999	31.3	0.0999

MEM dry powdered media

	MEM/EBSS Autoclavable, SH30327		MEM Alpha mod. w/ L-glutamine, ribo-/ deoxyribonucleosides, SH30007		MEM Glasgow mod. w/ L-glutamine, SH30269	
Component description	mg/L	mmol/L	mg/L	mmol/L	mg/L	mmol/L
Amino acids						
L-Glutamic acid	0	0	75	0.5098	0	0
L-Glutamine	0	0	292	1.9979	292	1.9979
Glycine	0	0	50	0.666	0	0
L-Histidine-HCl-H ₂ O	42	0.2004	41.88	0.1998	21	0.1002
L-Isoleucine	52	0.3964	52.5	0.4002	52.4	0.3995
L-Leucine	52	0.3964	52.4	0.3995	52.4	0.3995
L-Lysine-HCl	72.5	0.3969	72.47	0.3968	73.1	0.4002
L-Methionine	15	0.1005	15	0.1005	15	0.1005
L-Phenylalanine	32	0.1937	32	0.1937	33	0.1998
L-Proline	0	0	40	0.3474	0	0
L-Serine	0	0	25	0.2379	0	0
L-Threonine	48	0.403	48	0.403	47.6	0.3996
L-Tryptophan	10	0.049	10	0.049	8	0.0392
L-Tyrosine-2Na-2H ₂ O	36	0.1378	51.9	0.1987	60.42	0.2313
L-Valine	46	0.3927	46	0.3927	46.8	0.3995
Vitamins						
L-Ascorbic acid	0	0	50	0.2839	0	0
D-Biotin	0.02	0.0001	0.1	0.0004	0	0
Calcium D-pantothenate	1	0.0021	1	0.0021	2	0.0042
Choline chloride	1	0.0072	1	0.0072	2	0.0143
Folic acid	1	0.0023	1	0.0023	2	0.0045
Myo-inositol	2	0.0111	2	0.0111	3.6	0.02
Niacinamide	1	0.0082	1	0.0082	2	0.0164
Pyridoxal hydrochloride	1	0.0049	1	0.0049	2	0.0098
Riboflavin	0.1	0.0003	0.1	0.0003	0.2	0.0005
Thiamine-HCl	1	0.003	1	0.003	2	0.0059
Vitamin B12	0	0	1.36	0.001	0	0
Other						
Adenosine	0	0	10	0.0374	0	0
Cytidine	0	0	10	0.0411	0	0
D-Glucose (anhydrous)	1000	5.5506	1000	5.5506	4500	24.9778
Guanosine	0	0	10	0.0353	0	0
DL- α -Lipoic acid	0	0	0.2	0.001	0	0
Phenol red-Na	6.4	0.017	11	0.0292	16	0.0425
Sodium pyruvate	0	0	110	0.9996	0	0
Thymidine	0	0	10	0.0413	0	0
2'-Deoxyadenosine-H ₂ O	0	0	10	0.0371	0	0
2'-Deoxycytidine-HCl	0	0	11	0.0417	0	0
2'-Deoxyguanosine	0	0	10	0.0351	0	0
Uridine	0	0	10	0.041	0	0
Sodium bicarbonate	Add 2200	Add 26.1873	Add 2200	Add 26.1873	Add 2200	Add 26.1873

MEM dry powdered media

MEM/EBSS with L-glutamine, nonessential amino acids, SH30008

Component description	mg/L	mmol/L
Inorganic salts		
Calcium chloride (anhydrous)	199.4	1.7967
Ferric nitrate-9H ₂ O	0	0
Potassium chloride	398.8	5.349
Magnesium sulfate (anhydrous)	97.4	0.8092
Sodium chloride	6780.2	116.02
Sodium phosphate monobasic H ₂ O	139.6	1.01
Amino acids		
L-Alanine	0	0
L-Arginine-HCl	126.6	0.601
L-Asparagine-H ₂ O	0	0
L-Aspartic acid	0	0
L-Cysteine-HCl-H ₂ O	0	0
L-Cystine-2HCl	31.2	0.0996
L-Glutamic acid	0	0
L-Glutamine	291.2	1.99
Glycine	0	0
L-Histidine-HCl-H ₂ O	41.8	0.1994
L-Isoleucine	51.8	0.3944
L-Leucine	51.8	0.3944
L-Lysine-HCl	72.3	0.3958
L-Methionine	15.0	0.1005
L-Proline	0	0
L-Phenylalanine	34.0	0.2058
L-Serine	0	0
L-Threonine	47.9	0.4021
L-Tryptophan	10.0	0.04896
L-Tyrosine-2Na-2H ₂ O	51.7	0.1979
L-Valine	45.9	0.3918

MEM/EBSS with L-glutamine, nonessential amino acids, SH30008

Component description	mg/L	mmol/L
Vitamins		
L-Ascorbic acid	0	0
D-Biotin	0	0
Calcium D-pantothenate	1.0	0.002098
Choline chloride	1.0	0.007162
Folic acid	2.0	0.004531
Myo-inositol	1.0	0.00555
Niacinamide	1.0	0.008188
Pyridoxal hydrochloride	0.1	0.0004911
Riboflavin	0	0
Thiamine-HCl	1.0	0.002964
Vitamin B12	0	0
Other		
Adenosine	0	0
Cytidine	0	0
D-Glucose (anhydrous)	997.5	5.5367
Guanosine	0	0
DL-α-Lipoic acid	0	0
Phenol red-Na	11.0	0.02922
Sodium pyruvate	0	0
Thymidine	0	0
2'-Deoxyadenosine-H ₂ O	0	0
2'-Deoxycytidine-HCl	0	0
2'-Deoxyguanosine	0	0
Uridine	0	0
Sodium bicarbonate	Add 2200	Add 26.1873

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