

M199 Medium Ingredient Formula_Table 1

Ingredient (mg/L) / Cat. No.	PM150610	PM150610A	PM150611	PM150612	PM150613	PM150614
Inorganic Salt						
CaCl ₂ (Anhydrous)	200	200	200	200	200	200
Fe(NO ₃) ₃ ·9H ₂ O	0.7	0.7	0.7	0.7	0.7	0.7
MgSO ₄ (Anhydrous)	97.67	97.67	97.67	97.67	97.67	97.67
KCl	400	400	400	400	400	400
KH ₂ PO ₄	–	–	–	–	–	–
NaHCO ₃	2200	2200	2200	2200	2200	2200
NaCl	6800	6800	6800	6100	6100	6800
NaH ₂ PO ₄ ·H ₂ O	140	140	140	140	140	140
Na ₂ HPO ₄ (Anhydrous)	–	–	–	–	–	–
Amino Acid						
L-Alanyl-L-Glutamine	–	–	–	–	–	–
L-Arginine Hydrochloride	70	70	70	70	70	70
L-Cysteine hydrochloride·H ₂ O	0.1	0.1	0.1	0.1	0.1	0.1
L-Cystine 2HCl	26	26	26	26	26	26
L-Glutamine	100	100	–	100	–	100
L-Histidine Hydrochloride·H ₂ O	21.88	21.88	21.88	21.88	21.88	21.88
L-Isoleucine	40	40	40	40	40	40
L-Leucine	60	60	60	60	60	60
L-Lysine Hydrochloride	70	70	70	70	70	70
L-Methionine	15	15	15	15	15	15
L-Phenylalanine	25	25	25	25	25	25
L-Threonine	30	30	30	30	30	30
L-Tryptophan	10	10	10	10	10	10
L-Tyrosine Disodium Salt Dihydrate	58	58	58	58	58	58
L-Valine	25	25	25	25	25	25
Glycine	50	50	50	50	50	50
L-Alanine	25	25	25	25	25	25
L-Aspartic Acid	30	30	30	30	30	30
L-Glutamic Acid	75	75	75	75	75	75
L-Proline	40	40	40	40	40	40
L-Hydroxyproline	10	10	10	10	10	10
L-Serine	25	25	25	25	25	25
Vitamin						
L-Ascorbic Acid	0.05	0.05	0.05	0.05	0.05	0.05
Biotin	0.01	0.01	0.01	0.01	0.01	0.01
Choline Chloride	0.5	0.5	0.5	0.5	0.5	0.5
D-Calcium Pantothenate	0.01	0.01	0.01	0.01	0.01	0.01
Folic Acid	0.01	0.01	0.01	0.01	0.01	0.01
Menadione (Vitamin K ₃)	0.01	0.01	0.01	0.01	0.01	0.01
Niacinamide	0.025	0.025	0.025	0.025	0.025	0.025
Niacin	0.025	0.025	0.025	0.025	0.025	0.025
Para-aminobenzoic Acid	0.05	0.05	0.05	0.05	0.05	0.05
Pyridoxal Hydrochloride	0.025	0.025	0.025	0.025	0.025	0.025
Pyridoxine Hydrochloride	0.025	0.025	0.025	0.025	0.025	0.025
Riboflavin	0.01	0.01	0.01	0.01	0.01	0.01
Thiamine Hydrochlorid	0.01	0.01	0.01	0.01	0.01	0.01
Vitamin A Acetate	0.1	0.1	0.1	0.1	0.1	0.1
Calciferol	0.1	0.1	0.1	0.1	0.1	0.1
α-Tocopherol Sodium Phosphate	0.01	0.01	0.01	0.01	0.01	0.01

Meso-inositol	0.05	0.05	0.05	0.05	0.05	0.05
Others						
D-Glucose	1000	1000	1000	1000	1000	1000
Deoxyribose	0.5	0.5	0.5	0.5	0.5	0.5
Ribodese	0.5	0.5	0.5	0.5	0.5	0.5
Adenosine 5'-phosphate	0.2	0.2	0.2	0.2	0.2	0.2
Adenosine 5'-triphosphate Disodium	1	1	1	1	1	1
Adenine Sulfate	10	10	10	10	10	10
Guanine Hydrochloride	0.3	0.3	0.3	0.3	0.3	0.3
Thymine	0.3	0.3	0.3	0.3	0.3	0.3
Uracil	0.3	0.3	0.3	0.3	0.3	0.3
Cholesterol	0.2	0.2	0.2	0.2	0.2	0.2
Glutathione (Reduced)	0.05	0.05	0.05	0.05	0.05	0.05
Sodium Acetate	50	50	50	50	50	50
Tween 80	20	20	20	20	20	20
Hypoxanthine Sodium	0.4	0.4	0.4	0.4	0.4	0.4
Xanthine Sodium	0.34	0.34	0.34	0.34	0.34	0.34
HEPES	–	–	–	5958	5958	–
Phenol Red	20	20	20	20	20	–
Penicillin G Sodium Salt	–	100 kU	–	–	–	–
Streptomycin Sulfate	–	100	–	–	–	–

M199 Medium Ingredient Formula_Table 2

Ingredient (mg/L) / Cat. No.	PM150615	PM150616	PM150617	PM150618	PM150619	PM150620
Inorganic Salt						
CaCl ₂ (Anhydrous)	140	140	2000	200	200	200
Fe(NO ₃)-9H ₂ O	0.7	0.7	0.7	0.7	0.7	0.7
MgSO ₄ (Anhydrous)	97.67	97.67	976.7	97.67	97.67	97.67
KCl	400	400	400	400	400	400
KH ₂ PO ₄	60	60	–	–	–	–
NaHCO ₃	350	350	–	2200	2200	2200
NaCl	8000	7500	68000	6800	6100	6800
NaH ₂ PO ₄ -H ₂ O	–	–	1400	140	140	140
Na ₂ HPO ₄ (Anhydrous)	47.88	47.88	–	–	–	–
Amino Acid						
L-Alanyl-L-Glutamine	–	–	–	148.78	148.78	148.78
L-Arginine Hydrochloride	70	70	700	70	70	70
L-Cysteine hydrochloride-H ₂ O	0.1	0.1	0.1	0.1	0.1	0.1
L-Cystine 2HCl	26	26	260	26	26	26
L-Glutamine	100	100	–	–	–	–
L-Histidine Hydrochloride-H ₂ O	21.88	21.88	218.8	21.88	21.88	21.88
L-Isoleucine	40	40	40	40	40	40
L-Leucine	60	60	600	60	60	60
L-Lysine Hydrochloride	70	70	700	70	70	70
L-Methionine	15	15	150	15	15	15
L-Phenylalanine	25	25	250	25	25	25
L-Threonine	30	30	300	30	30	30
L-Tryptophan	10	10	100	10	10	10
L-Tyrosine Disodium Salt Dihydrate	58	58	58	58	58	58
L-Valine	25	25	250	25	25	25

Glycine	50	50	500	50	50	50
L-Alanine	25	25	250	25	25	25
L-Aspartic Acid	30	30	300	30	30	30
L-Glutamic Acid	75	75	75	75	75	75
L-Proline	40	40	400	40	40	40
L-Hydroxyproline	10	10	100	10	10	10
L-Serine	25	25	250	25	25	25
Vitamin						
L-Ascorbic Acid	0.05	0.05	0.5	0.05	0.05	0.05
Biotin	0.01	0.01	0.1	0.01	0.01	0.01
Choline Chloride	0.5	0.5	5	0.5	0.5	0.5
D-Calcium Pantothenate	0.01	0.01	0.1	0.01	0.01	0.01
Folic Acid	0.01	0.01	0.1	0.01	0.01	0.01
Menadione (Vitamin K3)	0.01	0.01	0.01	0.01	0.01	0.01
Niacinamide	0.025	0.025	0.25	0.025	0.025	0.025
Niacin	0.025	0.025	0.25	0.025	0.025	0.025
Para-aminobenzoic Acid	0.05	0.05	0.5	0.05	0.05	0.05
Pyridoxal Hydrochloride	0.025	0.025	0.025	0.025	0.025	0.025
Pyridoxine Hydrochloride	0.025	0.025	0.025	0.025	0.025	0.025
Riboflavin	0.01	0.01	0.1	0.01	0.01	0.01
Thiamine Hydrochlorid	0.01	0.01	0.1	0.01	0.01	0.01
Vitamin A Acetate	0.1	0.1	0.1	0.1	0.1	0.1
Vitamin D2	0.1	0.1	1	0.1	0.1	0.1
α-Tocopherol Sodium Phosphate	0.01	0.01	0.1	0.01	0.01	0.01
Meso-inositol	0.05	0.05	0.5	0.05	0.05	0.05
Others						
D-Glucose	1000	1000	10000	1000	1000	1000
Deoxyribose	0.5	0.5	5	0.5	0.5	0.5
Ribodesose	0.5	0.5	5	0.5	0.5	0.5
Adenosine 5'-phosphate	0.2	0.2	0.2	0.2	0.2	0.2
Adenosine 5'-triphosphate Disodium	1	1	10	1	1	1
Adenine Sulfate	10	10	100	10	10	10
Guanine Hydrochloride	0.3	0.3	3	0.3	0.3	0.3
Thymine	0.3	0.3	3	0.3	0.3	0.3
Uracil	0.3	0.3	3	0.3	0.3	0.3
Cholesterol	0.2	0.2	2	0.2	0.2	0.2
Glutathione (Reduced)	0.05	0.05	0.5	0.05	0.05	0.05
Sodium Acetate	50	50	500	50	50	50
Tween 80	20	20	200	20	20	20
Hypoxanthine Sodium	0.4	0.4	4	0.4	0.4	0.4
Xanthine Sodium	0.34	0.34	0.34	0.34	0.34	0.34
HEPES	–	5958	–	–	5958	–
Phenol Red	20	20	200	20	20	–
Penicillin G Sodium Salt	–	–	–	–	–	–
Streptomycin Sulfate	–	–	–	–	–	–