

Media Production Formulations

**Iscove's Modified Dulbecco's Medium
(IMDM)**

CCF Product Code Number: CCFDY002 (Old Code AY400)

Compound	Formula	mg/L
Part A: Inorganic Salts		
Calcium chloride (anhydrous)	CaCl ₂	165.00
Magnesium sulfate·7H ₂ O	MgSO ₄ ·7H ₂ O	200.00
Potassium chloride	KCl	330.00
Potassium nitrate	KNO ₃	0.076
Sodium bicarbonate	NaHCO ₃	3024.00
Sodium chloride	NaCl	4500.00
Sodium phosphate, monobasic·H ₂ O	NaH ₂ PO ₄ ·H ₂ O	125.00
Sodium selenite	Na ₂ SeO ₃	0.017
Part B: Other components		
D-Glucose	C ₆ H ₁₂ O ₆	4500.00
Hepes, 25mM	C ₈ H ₁₈ N ₂ O ₄ S	5958.00
Sodium Pyruvate	C ₃ H ₃ O ₃ ·Na	110.00
Phenol Red	C ₁₉ H ₁₃ O ₅ S·Na ₂	15.00

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Compound	Formula	mg/L
Part C: Amino Acids		
L-Alanine	$C_3H_7NO_2$	25.00
L-Arginine hydrochloride	$C_6H_{14}N_4O_2 \cdot HCl$	84.00
L-Asparagine·H ₂ O	$C_4H_8N_2O_3 \cdot H_2O$	28.40
L-Aspartic acid	$C_4H_7NO_4$	30.00
L-Cystine	$C_6H_{12}N_2O_4S_2$	70.20
L-Glutamic acid	$C_5H_9NO_4$	75.00
L-Glutamine	$C_5H_{10}N_2O_3$	584.00
Glycine	$C_2H_5NO_2$	30.00
L-Histidine hydrochloride·H ₂ O	$C_6H_9N_3O_2 \cdot HCl \cdot H_2O$	42.00
L-Isoleucine	$C_6H_{13}NO_2$	105.00
L-Leucine	$C_6H_{13}NO_2$	105.00
L-Lysine·HCl	$C_6H_{14}N_2O_2 \cdot HCl$	146.00
L-Methionine	$C_5H_{11}NO_2S$	30.00
L-Phenylalanine	$C_9H_{11}NO_2$	66.00
L-Proline	$C_5H_9NO_2$	40.00
L-Serine	$C_3H_7NO_3$	42.00

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Compound	Formula	mg/L
Part C: Amino Acids	(continued)	
L-Threonine	C ₄ H ₉ NO ₃	95.00
L-Tryptophan	C ₁₁ H ₁₂ N ₂ O ₂	16.00
L-Tyrosine	C ₉ H ₁₁ NO ₃	72.00
L-Valine	C ₅ H ₁₁ NO ₂	94.00
Part D: Vitamins		
Biotin	C ₁₀ H ₁₆ N ₂ O ₃ S	0.013
D-Calcium pantothenate	C ₁₈ H ₃₂ CaN ₂ O ₁₀	4.00
Choline chloride	C ₅ H ₁₄ ClNO	4.00
Folic acid	C ₁₉ H ₁₉ N ₇ O ₆	4.00
i-Inositol	C ₆ H ₁₂ O ₆	7.20
Nicotinamide	C ₆ H ₆ N ₂ O	4.00
Pyridoxine hydrochloride	C ₈ H ₉ NO ₃ ·HCl	4.00
Riboflavin	C ₁₇ H ₂₀ N ₄ O ₆	0.40
Thiamine hydrochloride	C ₁₂ H ₁₇ ClN ₄ OS·HCl	4.00
Vitamin B ₁₂	C ₆₃ H ₈₈ CoN ₁₄ O ₁₄ P	0.013
pH 7.4 Osmolarity: 299-311 mOsm		