

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO  
CELL CULTURE FACILITY  
Media Production Formulations

**McCoy's 5A Media  
(Modified without Tricine)**

**CCF Product Code Number: CCFAD001** (Old Code AI100)

<b>Compound</b>	<b>Formula</b>	<b>mg/L</b>
<b>Part A: Inorganic Salts</b>		
Calcium chloride (anhydrous)	CaCl <sub>2</sub>	100.00
Magnesium sulfate·7H <sub>2</sub> O	MgSO <sub>4</sub> ·7H <sub>2</sub> O	200.00
Potassium chloride	KCl	400.00
Sodium bicarbonate	NaHCO <sub>3</sub>	2200.00
Sodium chloride	NaCl	6460.00
Sodium phosphate·H <sub>2</sub> O	NaH <sub>2</sub> PO <sub>4</sub> ·H <sub>2</sub> O	580.00
<b>Part B: Other components</b>		
Bacto-Peptone G		600.00
D-Glucose	C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	3000.00
Glutathione (reduced)	C <sub>10</sub> H <sub>17</sub> N <sub>3</sub> O <sub>6</sub> S	0.50
Phenol Red (Na)	C <sub>19</sub> H <sub>13</sub> O <sub>5</sub> S·Na <sub>2</sub>	10.00
<b>Part C: Amino Acids</b>		
L-Alanine	C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	13.90
L-Arginine hydrochloride	C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> HCl	42.10
L-Asparagine	C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub>	45.00
L-Aspartic acid	C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub>	19.97
L-Cysteine	C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> S	31.50
L-Glutamic acid	C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>	22.10
L-Glutamine	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub>	219.20
Glycine	C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>	7.50
L-Histidine HCl H <sub>2</sub> O	C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub> HCl H <sub>2</sub> O	20.96

L-Hydroxyproline	$C_5H_9NO_3$	19.70
L-Isoleucine	$C_6H_{13}NO_2$	39.36
L-Leucine	$C_6H_{13}NO_2$	39.36
L-Lysine HCl	$C_6H_{14}N_2O_2 \cdot HCl$	36.50
L-Methionine	$C_5H_{11}NO_2S$	14.90
L-Phenylalanine	$C_9H_{11}NO_2$	16.50
L-Proline	$C_5H_9NO_2$	17.40
L-Serine	$C_3H_7NO_3$	26.30
L-Threonine	$C_4H_9NO_3$	17.90
L-Tryptophan	$C_{11}H_{12}N_2O_2$	3.10
L-Tyrosine	$C_9H_{11}NO_3$	18.10
L-Valine	$C_5H_{11}NO_2$	17.60

#### **Part D: Vitamins**

Ascorbic acid	$C_6H_8O_6$	0.50
Biotin	$C_{10}H_{16}N_2O_3S$	0.20
D-Calcium pantothenate	$C_{18}H_{32}CaN_2O_{10}$	0.20
Choline chloride	$C_5H_{14}ClNO$	5.00
Folic acid	$C_{19}H_{19}N_7O_6$	10.00
i-Inositol	$C_6H_{12}O_6$	36.00
Nicotinamide	$C_6H_6N_2O$	0.50
Nicotinic acid	$C_6H_5NO_2$	0.50
Para-Amino Benzoic Acid	$C_7H_7NO_2$	1.00
Pyridoxal hydrochloride	$C_8H_9NO_3 \cdot HCl$	0.50
Pyridoxine hydrochloride	$C_8H_{12}ClNO_3$	0.50
Riboflavin	$C_{17}H_{20}N_4O_6$	0.20
Thiamine hydrochloride	$C_{12}H_{17}ClN_4OS \cdot HCl$	0.20
Vitamin B <sub>12</sub>	$C_{63}H_{88}CoN_{14}O_{14}P$	2.00

pH 7.2 Osmolarity: 298-308 mOsm