ProductInformation

McCoy's 5A Modified Media

In 1959, McCoy and his coworkers reported the amino acid requirements for in vitro cultivation of Novikoff Hepatoma Cells. These studies were performed using Basal Medium 5A, and subsequently modified to create a new medium known as McCoy's 5A Medium. Hsu and Kellogg employed this medium to support growth of primary cultures derived from normal bone marrow, skin, gingiva, testes, mouse kidney, omentum, adrenal glands, lung, spleen, rat embryos, and other tissues.

COMPONENT	M 4892 g/L	M 9270 g/L	M 6523 g/L	M 8403 [1X] g/L
INORGANIC SALTS				
$CaCl_2 \cdot 2H_2O$	0.1324324	0.1324324	—	0.1324324
$MgSO_4$ (anhyd)	0.0976876	0.0976876	0.0976876	0.0976876
KCl	0.4	0.4	0.4	0.4
$NaHCO_3$	—	—	—	2.2
NaCl	6.46	6.46	6.46	6.46
NaH_2PO_4 (anhyd)	0.504	0.504	1.22	0.504
AMINO ACIDS				
L-Alanine	0.01336	0.01336	0.01336	0.01336
L-Arginine•HCl	0.04214	0.04214	0.04214	0.04214
L-Asparagine•H_2O	0.04503	0.04503	0.04503	0.04503
L-Aspartic Acid	0.01997	0.01997	0.01997	0.01997
L-Cysteine	0.02424	0.02424	0.02424	0.02424
L-Glutamic Acid	0.02207	0.02207	0.02207	0.02207
L-Glutamine	0.21915	0.21915	0.21915	—
Glycine	0.00751	0.00751	0.00751	0.00751
L-Histidine•HCl•H_2O	0.02096	0.02096	0.02096	0.02096
Hydroxy-L-proline	0.01967	0.01967	0.01967	0.01967
L-Isoleucine	0.03936	0.03936	0.03936	0.03936
L-Leucine	0.03936	0.03936	0.03936	0.03936
L-Lysine•HCl	0.03654	0.03654	0.03654	0.03654
L-Methionine	0.01492	0.01492	0.01492	0.01492
L-Phenylalanine	0.01652	0.01652	0.01652	0.01652
L-Proline	0.01727	0.01727	0.01727	0.01727
L-Serine	0.02628	0.02628	0.02628	0.02628
L-Threonine	0.01787	0.01787	0.01787	0.01787
L-Tryptophan	0.00306	0.00306	0.00306	0.00306
L-Tyrosine•2Na•$2H_2O$	0.0261	0.0261	0.0261	0.0261
L-Valine	0.01757	0.01757	0.01757	0.01757
VITAMINS				
Ascorbic Acid	0.0005625	0.0005625	0.0005625	0.0005625
p-Amino Benzoic Acid	0.001	0.001	0.001	0.001
D-Biotin	0.0002	0.0002	0.0002	0.0002
Choline Chloride	0.005	0.005	0.005	0.005
Folic Acid	0.010	0.010	0.010	0.010
myo-Inositol	0.036	0.036	0.036	0.036
Niacinamide	0.0005	0.0005	0.0005	0.0005
Nicotinic Acid	0.0005	0.0005	0.0005	0.0005
D-Pantothenic Acid •½Ca	0.0002	0.0002	0.0002	0.0002
Pyridoxal•HCl	0.0005	0.0005	0.0005	0.0005
Pyridoxine•HCl	0.0005	0.0005	0.0005	0.0005
Riboflavin	0.0002	0.0002	0.0002	0.0002
Thiamine•HCl	0.0002	0.0002	0.0002	0.0002
Vitamin B-12	0.002	0.002	0.002	0.002

Formulas continued on next page

McCoy's 5A Modified Media continued

COMPONENT	M 4892 g/L	M 9270 g/L	M 6523 g/L	M 8403 [1X] g/L
OTHER				
Peptone	0.6	0.6	0.6	0.6
D-Glucose	3.0	3.0	3.0	3.0
Glutathione (reduced)	0.0005	0.0005	0.0005	0.0005
Phenol Red•Na	0.011	—	0.011	0.011
ADD				
Sodium Bicarbonate	2.2	2.2	2.2	—
L-Glutamine	—	—	—	0.21915
Grams of powder required to prepare 1 L	12.0	11.9	12.5	N/A

REFERENCES

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