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Product Information

H-Y Medium (DME/NCTC 109) Hybri-Max[®]

H-Y Medium is a rich, complex medium specifically designed to support hybrid cells in culture. It is a mixture containing seven parts Dulbecco's Modified Eagle's Medium with 4500 mg glucose per liter, one part NCTC 109, oxalacetic acid, sodium pyruvate, and bovine insulin. It is most commonly used with a supplement of fetal bovine serum. Hypoxanthine, aminopterin and thymidine can be added to make HY-HAT selection medium.

COMPONENT	H 9014 g/L	Pyridoxal•HCl Pyridoxine•HCl Retinol Acetate	0.003507812 0.000007812 0.00003125
INORGANIC SALTS			
CaCl ₂ •2H ₂ O	0.265		
Fe(NO ₃) ₃ •9H ₂ O	0.0000875		
MgSO ₄ (anhyd)	0.1		
KCl	0.4		
Na•Acetate (anhyd)	0.00625		
NaCl	6.45		
NaH ₂ PO ₄ (anhyd)	0.111		
AMINO ACIDS			
L-Alanine	0.003935		
L-Arginine•HCl	0.077395		
L-Asparagine•H ₂ O	0.00114875		
L-Aspartic Acid (free acid)	0.00123875		
L-Cysteine•HCl•H ₂ O	0.03621375		
L-Cystine•2HCl	0.056485		
L-Glutamic Acid	0.0010325		
L-Glutamine	0.52796625		
Glycine	0.02793875		
L-Histidine•HCl•H ₂ O	0.04008125		
Hydroxy-L-proline	0.00051125		
L-Isoleucine	0.09413		
L-Leucine	0.09443		
L-Lysine•HCl	0.13255375		
L-Methionine	0.026805		
L-Ornithine•HCl	0.00117625		
L-Phenylalanine	0.05981625		
L-Proline	0.00076625		
L-Serine	0.03809375		
Taurine	0.0005225		
L-Threonine	0.08549125		
L-Tryptophan	0.161875		
L-Tyrosine•2Na•2H ₂ O	0.09377875		
L-Valine	0.085375		
VITAMINS			
L-Ascorbic Acid•Na	0.00625		
D-Biotin	0.000003125		
Calciferol	0.00003125		
Choline Chloride	0.00365625		
Folic Acid	0.003503125		
myo-Inositol	0.006315625		
Menadione (sodium bisulfite)	0.000005		
Nicotinic Acid	0.000007812		
Niacinamide	0.003507812		
D-Pantothenic Acid•½Ca	0.003503125		
p-Aminobenzoic Acid	0.000015625		

COMPONENT	H 9014 g/L
Riboflavin	0.000353125
DL- α -Tocopherol Phosphoric Acid•2Na	0.000003125
Thiamine•HCl	0.00353125
Vitamin B-12	0.00125
OTHER	
L- α -Amino-n-butyric Acid	0.00068875
Coenzyme A	0.0003125
Coccarboxylase	0.000125
2'-Deoxyadenosine	0.00125
2'-Deoxycytidine•HCl	0.00125
2'-Deoxyguanosine•HCl	0.00125
Flavin Adenine Dinucleotide•2Na	0.000125
D-Glucuronic Acid Lactone	0.000225
D-Glucuronic Acid•Na	0.000225
D-(+)Glucosamine•HCl	0.00048125
D-Glucose	4.0625
Glutathione oxidized•2Na	0.0025
Insulin	0.00833
Methylcytosine•HCl	0.0000125
β -NAD	0.000875
β -NADP•2Na	0.000125
Oxalacetic Acid	0.15
Phenol Red•Na	0.0164125
Pyruvic Acid•Na	0.05
Thymidine	0.00125
TWEEN 80	0.0015625
UTP•Na	0.000125
ADD	
NaHCO ₃	3.5
Grams of powder required to prepare 1 L	13.3

REFERENCES

1. Kennett, R.H., McKearn, T.J., and Bechtol, K.B. (1980). Monoclonal Antibodies: Hybridomas, A New Dimension in Biological Analyses. Plenum Press, New York. 365-371.
2. Kennett, R.H. (1978) Hybridoma Plasmacytoma Production: Fusions with Adult Spleen Cells, Monoclonal Spleen Fragments, Neonatal Spleen Cells and Human Spleen Cells. Current Topics in Microbiology. 81, 77.