



Product Information

NCTC Media

NCTC-135 was developed by the Tissue Culture Section, Laboratory of Biology, National Cancer Institute (NCI), Bethesda, Maryland. NCTC-135 is a modification of NCTC- 109 medium, also developed by the NCI, differing only in that L-cysteine•HCl was replaced with L-cystine due to possible toxic effects of L-cysteine•HCl on certain cell types. NCTC-109 and the 135 modification were formulated to establish and maintain a strain of mouse cells (L929) in a chemically defined and serum-free environment. Successful establishment of L929 cells led to further nutritional and metabolic studies and the establishment of at least ten other cell lines adapted to grow in NCTC-135 medium.

REFERENCE

1. Evans, V.J., et al, (1964). Chemically Defined Media for Cultivation of Long-Term Cell Strains from Four Mammalian Species. Exp. Cell Res. 36, 439.

	N 3262	N 1140
	(135)	[1X]
	(109)	
COMPONENT	g/L	g/L
INORGANIC SALTS		
CaCl ₂ •2H ₂ O	0.265	0.265
MgSO ₄ (anhyd)	0.1	0.1
KCl	0.4	0.4
Na•Acetate (anhyd)	0.03	0.03
NaHCO ₃	—	2.2
NaCl	6.8	6.8
NaH ₂ PO ₄ (anhyd)	0.122	0.122
AMINO ACIDS		
L-Alanine	0.03148	0.03148
L-Arginine•HCl	0.03116	0.03116
L-Asparagine•H ₂ O	0.00919	0.00919
L-Aspartic Acid	0.00991	0.00991
L-Cysteine•HCl•H ₂ O	—	0.28971
L-Cystine•2HCl	0.01368	0.01368
L-Glutamic Acid	0.00826	0.00826
L-Glutamine	0.13573	—
Glycine	0.01351	0.01351
L-Histidine•HCl•H ₂ O	0.02665	0.02665
Hydroxy-L-Proline	0.00409	0.00409
L-Isoleucine	0.01804	0.01804
L-Leucine	0.02044	0.02044
L-Lysine•HCl	0.03843	0.03843
L-Methionine	0.00444	0.00444
L-Ornithine•HCl	0.00941	0.00941
L-Phenylalanine	0.01653	0.01653
L-Proline	0.00613	0.00613
L-Serine	0.01075	0.01075
L-Threonine	0.01893	0.01893
L-Tryptophan	0.0175	0.0175
L-Tyrosine•2Na•2H ₂ O	0.0237	0.0237
L-Valine	0.025	0.025
VITAMINS		
L-Ascorbic Acid	0.05	0.05
D-Biotin	0.000025	0.000025
Calciferol	0.00025	0.00025
Choline Chloride	0.00125	0.00125
Folic Acid	0.000025	0.000025
myo-Inositol	0.000125	0.000125
Menadione (sodium bisulfite)	0.00004	0.00004
Niacinamide	0.0000625	0.0000625
Nicotinic Acid	0.0000625	0.0000625

Formulas continued on next page

NCTC Media continued

COMPONENT	N 3262	N 1140
	(135) g/L	[1X] (109) g/L
<i>p</i> -Amino Benzoic Acid	0.000125	0.000125
D-Panthenic Acid•½Ca	0.000025	0.000025
Pyridoxal•HCl	0.0000625	0.0000625
Pyridoxine•HCl	0.0000625	0.0000625
Retinol Acetate	0.00025	0.00025
Riboflavin	0.000025	0.000025
Thiamine•HCl	0.000025	0.000025
DL-α-Tocopherol Phosphate•2Na	0.000025	0.000025
Vitamin B-12	0.01	0.01
OTHER		
L-Amino-n-Butyric Acid	0.00551	0.00551
Coccarboxylase	0.001	0.001
Coenzyme A•Na	0.0025	0.0025
2'-Deoxyadenosine	0.01	0.01
2'-Deoxycytidine•HCl	0.01	0.01
2'-Deoxyguanosine•HCl	0.01	0.01
Flavin Adenine Dinucleotide•2Na	0.001	0.001
D-Glucosamine•HCl	0.00385	0.00385
D-Glucose	1.0	1.0
Glucuronate•Na	0.0018	0.0018
D-Glucuronolactone	0.0018	0.0018
Glutathione•Na	0.02	0.02
5'-Methylcytosine•HCl	0.0001	0.0001
β-NAD	0.007	0.007
β-NADP•Na	0.001	0.001
Phenol Red•Na	0.02	0.02
L-Taurine	0.00418	0.00418
Thymidine	0.01	0.01
TWEEN 80	0.0125	0.0125
Uridine Triphosphate•Na	0.001	0.001
ADD		
NaHCO ₃	2.2	—
L-Glutamine	—	0.13573
Grams of powder required to prepare 1 L	9.4	N/A