

Technical Information

NCTC 109 Medium

With Phenol red and Co-enzymes Without L-Glutamine and HEPES

Product Code: AL1138

Application:- NCTC 109 is one of the chemically defined medium in the series on NCTC media developed by Virginia Evans of the Tissue Culture Section of National Cancer Institute, Bethesda. NCTC 109 was the result of many years of development and modifications. The medium was originally formulated to establish and maintain a strain of mouse cells, L929. The medium has been shown to support growth of fibroblast-like and epithelial-like cells of both normal and malignant origin from mice, hamsters, monkeys and humans. NCTC 135 is similar to NCTC 109 except that L-Cysteine has been replaced with L-Cystine due to possible side effects of L-Cysteine on certain cell lines.

AL1138 is NCTC 109 Medium containing Sodium bicarbonate and co-enzymes. It does not contain L- Glutamine and HEPES. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition**

Ingredients	mg/Litre
INORGANIC SALTS	
Calcium chloride dihydrate	265.000
Magnesium sulphate anhydrous	100.00
Potassium chloride	400.00
Sodium acetate anhydrous	30.000
Sodium bicarbonate	2200.00
Sodium chloride	6800.00
Sodium dihydrogen phosphate anhydrous	122.000
AMINO ACIDS	
Glycine	13.510
Hydroxy-L-Proline	4.090
L-Alanine	34.480
L-Arginine hydrochloride	31.160
L-Asparagine monohydrate	9.190
L-Aspartic acid	9.910
L-Cysteine hydrochloride monohydrate	289.710
L-Cystinedihydrochloride	13.680
L-Glutamic acid	8.260
L-Histidine hydrochloride monohydrate	26.650
L-Isoleucine	18.040
L-Leucine	20.440
L-Lysine hydrochloride	38.430
L-Methionine	4.440
L-Ornithine hydrochloride	9.410

L-Phenylalanine	16.530
L-Proline	6.130
L-Serine	10.750
L-Threonine	18.930
L-Tryptophan	17.500
L-Tyrosine disodium salt dihydrate	23.700
L-Valine	25.000
VITAMINS	
Calciferol	0.250
Choline chloride	1.250
D-Biotin	0.025
D-Pantothenic acid (hemicalcium)	0.025
DL-Tocopherol phosphate disodium salt	0.025
Folic acid	0.040
L-Ascorbic acid	50.000
Menadione sodium bisulphite	0.125
Nicotinamide	0.0625
Nicotinic acid	0.0625
Pyridoxal hydrochloride	0.0625
Pyridoxine hydrochloride	0.0625
Retinol Acetate	0.250
Riboflavin	0.025
Thiamine hydrochloride	0.025
Vitamin B12	10.000
myo-Inositol	0.125
p-Amino benzoic acid (PABA)	0.125
OTHERS	
2' Deoxyadenosine	10.000
2' Deoxycytidine hydrochloride	10.000
2' Deoxyguanosine hydrochloride	10.000
5'-Methylcytosine hydrochloride	0.100
Coccarboxylase	1.000
Coenzyme A sodium salt	2.500
D-Glucosamine hydrochloride	3.850
D-Glucose	1000.000
D-Glucuronolactone	1.800
Flavin adenine dinucleotide disodium salt	1.000
Glucuronate sodium salt	1.800
Glutathione sodium salt	20.000
L-Amino-n-Butyric acid	5.510
L-Taurine	4.180
Phenol red sodium salt	20.000
Thymidine	10.000
Tween 80	12.500
Uridine triphosphate sodium salt	1.000
β -NAD	7.000
β -NADP	1.000

Quality control

Appearance

Orangish red coloured, clear solution

pH

7.00 -7.60

Osmolality in mOsm/Kg H₂O

300.0 -340.00

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts .

Endotoxin Content

NMT 1EU/ml

Storage and Shelf Life

Store at 2-8°C away from bright light. Shelf life is 12 months. Use before expiry date given on the product label.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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