

Technical Information

MicSera Iscove's Modified Dulbecco's Medium

With 25mM HEPES Buffer and Sodium bicarbonate Without L-Glutamine
1X Liquid Cell Culture Medium requiring reduced serum supplementation

Product Code: RSL1007

Application:- MicSera media are based on the classical formulations supplemented with insulin, transferrin and other advanced nutrients. The additional nutrients help in reducing the percentage of serum required to grow most of the common cell lines. The percentage of serum reduction may vary with type of cell line used. For nonfastidious cell lines serum can be reduced from 10% to as low as 1%. For fastidious cell lines serum usage can be reduced from 10% to 2.5%. MicSera medium can be used without prior adaptation and sub cultured using normal procedures. Reduced serum supplementation improves the reproducibility of experimental results by decreasing the variability caused due to undefined serum constituents. It also facilitates down regulation process in bioassays and in purification process of culture products.

RSL1007 is MicSera Iscove's Modified Dulbecco's Medium with sodium bicarbonate and HEPES buffer. It does not contain L-glutamine. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. It does not contain L-glutamine. 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	219.000
Magnesium sulphate anhydrous	97.720
Potassium chloride	330.000
Potassium nitrate	0.076
Sodium bicarbonate	3204.000
Sodium chloride	4505.000
Sodium dihydrogen phosphate anhydrous	109.000
Sodium selenite	0.0173
AMINO ACIDS	
Glycine	30.000
L-Alanine	25.000
L-Arginine hydrochloride	84.000
L-Asparagine	25.000
L-Aspartic acid	30.000
L-Cystine dihydrochloride	91.240
L-Glutamic acid	75.000
L-Histidine hydrochloride monohydrate	42.000
L-Isoleucine	104.800
L-Leucine	104.800
L-Lysine hydrochloride	146.200
L-Methionine	30.000
L-Phenylalanine	66.000
L-Proline	40.000
L-Serine	42.000
L-Threonine	95.200
L-Tryptophan	16.000

L-Tyrosine Disodium Salt	104.200
L-Valine	93.600
VITAMINS	
Choline chloride	4.000
D-Biotin	0.013
D-Ca-Pantothenate	4.000
Folic acid	4.000
Nicotinamide	4.000
Pyridoxal hydrochloride	4.000
Riboflavin	0.400
Thiamine hydrochloride	4.000
Vitamin B12	0.013
i-Inositol	7.200
OTHERS	
D-Glucose	4500.000
Growth Supplement mix	Proprietary
HEPES Buffer	5958.000
Phenol red (Sodium Salt)	15.000
Sodium pyruvate	110.000

Methodology

1. Add 20ml of 200mM L-glutamine (TCL1012) or MiGlutaXL supplement (TCL1030) for 1 litre of medium.

Recommendations for use with MicSera Media:

- MicSera media have been optimized at 2.5% serum concentration for a broad range of cell culture applications. Recommended concentrations of serum using MicSera media ranges from 1-5%. However the concentration of serum used may need to be adjusted for specific cell types or applications to achieve optimal results. Titration of FBS concentration is recommended to determine maximum serum reduction.
- MicSera media are provided as 1X solutions and need to be supplemented with 4mM Glutamine and required amount of reduced serum.
- In case of antibiotics being used to control contamination, it is recommended to reduce the amount of antibiotics in proportion to the amount of serum reduced.

Material required but not provided

L-Glutamine Solution 200mM (TCL1012)
 MiGlutaXL Supplement (TCL1030)
 Fetal Bovine Serum (BA3112/RM12432)

Quality control

Appearance

Orangish red colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H2O

280.00 -320.00

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 and comparing it with a control medium through minimum three subcultures.

Endotoxin Content

NMT 5EU/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.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
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- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.