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Technical Datasheet

LoSera™ RPMI-1640

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

Product Code: RSL012

Product Description:

LoSera™ 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 non-fastidious 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%. LoSera™ 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.

RSL012 is LoSera™ RPMI-1640 with HEPES buffer and sodium bicarbonate. It does not contain L-glutamine. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37ºC prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition:

Ingredients	mg/L
INORGANIC SALTS	
Calcium nitrate tetrahydrate	100.000
Disodium hydrogen phosphate anhydrous	800.000
Magnesium sulphate anhydrous	48.840
Potassium chloride	400.000
Sodium bicarbonate	2000.000
Sodium chloride	6000.000
AMINO ACIDS	
Glycine	10.000
L-Arginine hydrochloride	241.870
L-Asparagine monohydrate	50.000
L-Aspartic acid	20.000
L-Cystine dihydrochloride	65.150
L-Glutamic acid	20.000
L-Histidine hydrochloride	20.960
L-Hydroxyproline	20.000
L-Isoleucine	50.000
L-Leucine	50.000
L-Lysine hydrochloride	40.000
L-Methionine	15.000
L-Phenylalanine	15.000
L-Proline	20.000
L-Serine	30.000
L-Threonine	20.000
L-Tryptophan	5.000
L-Tyrosine disodium salt dihydrate	28.830
L-Valine	20.000
VITAMINS	
Choline chloride	3.000
D-Biotin	0.200
D-Ca-Pantothenate	0.250
Folic acid	1.000
Niacinamide	1.000
Pyridoxine hydrochloride	1.000
Riboflavin	0.200
Thiamine hydrochloride Vitamin	1.000
B12	0.005
i-Inositol	35.000
p-Amino benzoic acid (PABA)	1.000
OTHERS	
D-Glucose	2000.000
Glutathione reduced	1.000
Growth Supplement mix	Proprietary
HEPES Buffer	5958.000
Phenol red sodium salt	5.300

Directions:

Add 20ml of 200mM L-glutamine (TCL012) or HiGlutaXL™ supplement (TCL030) for 1 litre of medium.

Recommendations for use with LoSera™ Media:

1. LoSera™ media have been optimized at 2.5% concentration for a broad range of cell culture applications.Recommended concentrations of serum using LoSera™ 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.
2. LoSera™ media are provided as 1X solutions and need to be supplemented with 4mM Glutamine and required amount of reduced serum.
3. 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 (TCL012)
HiGlutaXL™ Supplement (TCL030)
Fetal Bovine Serum (RM1112/RM10432)

Quality Control:

Appearance
Orange colored, clear solution

pH
7.00 -7.60

Osmolality in mOsm/Kg H_2O
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.

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.