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Technical Datasheet

LoSera™ Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12 Ham (DMEM/ F12, 1:1 Mixture)

With L-Alanyl-L-Glutamine, HEPES buffer, Sodium bicarbonate and Trace elements
1X Liquid Cell Culture Medium requiring reduced serum supplementation

Product Code: RSL006G

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.

RSL006G is LoSera™ DMEM/Nutrient Mixture F-12 Ham with L-alanyl-l-glutamine, trace elements, sodium bicarbonate and 15mM HEPES buffer. 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	
Ammonium metavanadate	0.00058
Ammonium molybdate tetrahydrate	0.00618
Calcium chloride dihydrate	154.500
Copper sulphate pentahydrate	0.0013
Disodium hydrogen phosphate	71.020
Ferric nitrate ninahydrate	0.050
Ferrous sulphate heptahydrate	0.417
Magnesium chloride hexahydrate	61.200
Magnesium sulphate anhydrous	48.840
Manganese sulphate	0.000151
Nickel chloride	0.00012
Potassium chloride	311.800
Sodium bicarbonate	1200.000
Sodium chloride	6996.000
Sodium dihydrogen phosphate monohydrate	54.300
Sodium metasillicate nonahydrate	0.0142
Sodium selenite	0.00519
Stannous chloride dihydrate	0.00011
Zinc sulphate heptahydrate	0.432
AMINO ACIDS	
Glycine	18.750
L-Alanine	4.450
L-Alanyl-L-Glutamine	542.500
L-Arginine hydrochloride	147.500
L-Asparagine monohydrate	7.500
L-Aspartic acid	6.650
L-Cysteine hydrochloride monohydrate	17.560
L-Cystine dihydrochloride	31.290
L-Glutamic acid	7.350
L-Histidine hydrochloride monohydrate	31.480
L-Isoleucine	54.470
L-Leucine	59.050
L-Lysine hydrochloride	91.250
L-Methionine	17.240
L-Phenylalanine	35.480
L-Proline	17.250
L-Serine	26.250
L-Threonine	53.450
L-Tryptophan	9.020
L-Tyrosine disodium salt dihydrate	48.100
L-Valine	52.850
VITAMINS	
Choline chloride	8.980
D-Biotin	0.0035
D-Ca-Pantothenate	2.240
Folic acid	2.660

Niacinamide	2.020
Pyridoxal hydrochloride	2.000
Pyridoxine hydrochloride	0.031
Riboflavin	0.219
Thiamine hydrochloride	2.170
Vitamin B12	0.680
myo-Inositol	12.600
OTHERS	
D-Glucose	3151.000
DL-Thioctic acid	0.105
Growth Supplement mix	Proprietary
HEPES buffer	3574.500
Hypoxanthine sodium salt	2.400
Linoleic acid	0.042
Phenol red sodium salt	8.630
Putrescine hydrochloride	0.081
Sodium pyruvate	110.000
Thymidine	0.365

Directions:

Recommendations for use with LoSera™ Media:

1. LoSera™ media have been optimized at 2.5% serum 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. 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:

Fetal Bovine Serum (RM1112/RM10432)

Quality Control:

Appearance

Red colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H_2O

300.00 -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 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.

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