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LSF-Mesenchymal Medium - GMP Grade **with L-Glutamine GMP-103110 500 ml**

General

Mesenchymal stem cells, part of the hematopoietic stem cell network, have become a very important part of research into human therapeutics. Mesenchymal stem cells, derived from bone marrow, are capable of self renewal and of differentiation into bone-, cartilage-, muscle- and fat cells. Differentiation into distinct cell types can be achieved by directed stimulation using cytokines. These cells have many valuable applications for example in regenerative medicine for reimplantation into patients. Mesenchymal Stem Medium is a ready to use medium for cultivation and expansion of mesenchymal stem cells. No supplementation of serum and L-glutamine is required.

Applications

- Growth of mesenchymal stem cells
- Growth of mesenchymal progenitor cells
- Preparation of mesenchymal cells for differentiation

Features

- Optimized formulation for expansion of mesenchymal cells
- Simplified characterization and quantification of mesenchymal progenitors

Composition

Mesenchymal Medium consists of a modified DMEM medium containing specific trace elements, FBS and L-glutamine.

Note: For differentiation of mesenchymal cells into bone-, cartilage-, muscle- and fat cells cytokines must be added.

Product Specifications

CO ₂ -Concentration, optimum	8.5 %
pH	7.0 – 7.5
Osmolality	280 – 350 mOsmol/kg
Endotoxin	< 20 EU/ml
Sterility	tested
Shelf Life	24 months
Storage	≤ 15°C

Shelf Life and Storage

Mesenchymal Medium is stable for 2 years when stored at $<-15^{\circ}\text{C}$. Once thawed, Mesenchymal Medium is stable for 4 weeks when stored at $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$.

Thawing

Mesenchymal Medium should be thawed in a $+37^{\circ}\text{C}$ water bath and mixed by swirling prior to use. Alternatively the medium can also be thawed overnight at $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$.

Incubation

If required antibiotics can be added. After thawing the complete medium can be dispensed into appropriate vessels and mesenchymal stem cells can be transferred. Incubate cells in an incubator with an optimal CO_2 -concentration of 8.5 % at 37°C .

For differentiation of mesenchymal stem cells into bone-, cartilage-, muscle- and fat cells cytokines and growth factors must be added (not included).

For *in vitro* laboratory use or further manufacturing only. Not for human use.

Formulation (mg/l)

Inorganic Salts

Calcium Chloride anhydrous	200.00
Ferric(III)-Nitrate $\cdot 9\text{H}_2\text{O}$	0.10
Potassium Chloride	400.00
Magnesium Sulphate anhydrous	97.70
Sodium Chloride	6400.00
Sodium Dihydrogen Phosphate $\cdot \text{H}_2\text{O}$	125.00
Sodium Hydrogen Carbonate	3700.00

Amino Acids

L-Arginine $\cdot \text{HCl}$	84.00
L-Cystine	48.00
L-Glutamine	584.00
Glycine	30.00
L-Histidine $\cdot \text{HCl} \cdot \text{H}_2\text{O}$	42.00
L-Isoleucine	105.00
L-Leucine	105.00
L-Lysine $\cdot \text{HCl}$	146.00
L-Methionine	30.00
L-Phenylalanine	66.00
L-Serine	42.00
L-Threonine	95.00
L-Tryptophan	16.00
L-Tyrosine	72.00
L-Valine	94.00

Vitamins

Choline Chloride	4.00
Folic Acid	4.00
Myo-Inositol	7.20
Nicotinamide	4.00
D-Pantothenic Acid (hemicalcium)	4.00
Pyridoxal • HCl	4.00
Riboflavin	0.40
Thiamine • HCl	4.00

Other Components

D-Glucose anhydrous	4500.00
Phenol Red	15.00
Trace Elements	prop. info.*
Foetal Bovine Serum	prop. info.*

* proprietary information

Per ulteriori informazioni [CONTATTACI](#)

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