

SUPERCULTURE Human Mesenchymal Stem Cells Culture Kit

[Product Name]

Generic name: Human Mesenchymal Stem Cells Culture Kit

[Product Model]

Type A and Type B

[Packing Size]

500mL/kit

[Intended Use]

It is only used for the proliferation and culture of human mesenchymal stem cells and does not have the functions of cell selection, induction and differentiation.

[Test Principle]

As widely used in various fields such as biology, medicine, and new drug research and development, cell culture has become one of the most essential basic sciences, and the establishment of appropriate cell culture protocols can effectively improve experimental efficiency and stability, while saving experimental costs. In the traditional cell culture process, most of the media contain FBS or FCS. Since many unknown components contained in the serum may inhibit or stimulate the cells, thus interfering with the experiment, and due to the uncertainty of the serum, different batches have different effects on the experiment, resulting in reduced repeatability of the experiment. Therefore, Dakewe has introduced the serum-free human mesenchymal stem cells culture kit, which can effectively avoid the influence of changes in serum quality and serum components on the experiment, and improve the repeatability of cell culture and experimental results.

[Model Specification]

Product Name	Cat. No.	Model	Size	Component No.	Component Name	Size	Quantity
Human Mesenchymal Stem Cells Culture Kit	6914511	Type A	500 mL /Kit	6914511-1	Human Mesenchymal Stem Cell Basal Medium (Type A)	475 mL	1 bottle
				6914511-2	Human mesenchymal stem cell culture supplement	25 mL	1 bottle
	6914521	Type B	500 mL /Kit	6914521-1	Human Mesenchymal Stem Cell Basal Medium (Type B)	475 mL	1 bottle
				6914521-2	Human mesenchymal stem cell culture supplement	25 mL	1 bottle

[Storage Conditions and Shelf Life]

Human Mesenchymal Stem Cell Basal Medium: unopened, store at 2°C~8°C, valid for 1 year;

Human mesenchymal stem cells culture supplement: unopened, store at -25°C~-10°C, valid for 1 year;

After mixture, store at 2°C~8°C, valid for 2 weeks;

[Sample Requirements]

1. Cell requirements: Primary cultured or thawed human mesenchymal stem cells that have been frozen;
2. Blow the cell suspension off with the pipette evenly to form a single cell suspension.

[Test Methods]

Preparation

1. Prepare 25 mL of Human mesenchymal stem cell culture supplement, thaw in 37°C water bath, filter with 0.22 µm cell filter or centrifuge 3000 xg for 10 min at 4°C if there is pellet, and take the supernatant. This step does not affect the experimental results;
2. Prepare 475 mL of Human Mesenchymal Stem Cell Basal Medium and restore it to room temperature;
3. Add the Human mesenchymal stem cell culture supplement into 475 mL Human Mesenchymal Stem Cell Basal Medium to obtain the complete medium at 5% concentration;
4. The prepared complete medium of human mesenchymal stem cells can be stored at 2°C~8°C for 2 weeks.

Cell Culture

1. Count the human mesenchymal stem cells (MSC) harvested by passage or thawed;
2. Add this medium to the desired cell concentration and inoculate into the culture flask (in general, the recommended inoculum concentration is $0.7 \times 10^4 \sim 1 \times 10^4/\text{cm}^2$) for culture;
3. Incubation conditions: 5% CO₂, 37°C;
4. According to the cell growth, replace the medium every 2~3 days, and digestion can be performed when the cells grow to 80%~90% confluence;
5. Digestion method: Remove the medium from the culture flask, and wash the adherent cells twice with DPBS or saline; spread the bottom of the culture flask with trypsin or trypsin substitute, incubate it in a 37°C incubator for 1~3 min, stop the digestion by adding complete medium of human mesenchymal stem cells, transfer the cell suspension into a centrifuge tube and centrifuge 210 g for 4 min, and the precipitates are the desired cells.
6. Count the cells and harvest them directly or continue inoculation and culture as needed.

[Interpretation of Test Results]

Culture the human mesenchymal stem cells for more than three passages with a mean doubling time of ≤ 50 h.

[Limitation of Test Methods]

The effect of this product is affected by such factors as storage conditions, operator experience and sample quality.

[Precautions]

1. This product should be used by professionals. Read the instructions carefully prior to use, and take good personal health protection;
2. Operate aseptically throughout the experiment;
3. During cell mixing, try to blow off and mix well to avoid cell clustering;
4. During the storage of reagents, keep the product away from high temperature, low temperature and sunlight; during the use of reagents, pay attention to operate aseptically;
5. Use within the validity period;
6. Waste liquid should be disposed of in accordance with national or other relevant regulations.









[Product Performance Indicators]

Component Name	Appearance	pH	Osmolality	Endotoxin	Microbial limit
Human Mesenchymal Stem Cell Basal Medium (Type A)	Clear orange red liquid	7.2±0.3	280~320 mOsm/kg	<0.24 EU/mL	No microbes detected
Human Mesenchymal Stem Cell Basal Medium (Type B)	Clear colorless or yellowish liquid				
Human mesenchymal stem cell culture supplement	Yellowish liquid	7.4±0.3	300~360 mOsm/kg	<0.24 EU/mL	No microbes detected

[Associated Product]

Product name	Cat. No.	Size
DPBS	6062011	500 mL/flask
Attachment solution	6063011	100 mL/flask
Trypsin solution	6063111	100 mL/flask

[Product Description of Labels and Symbols]

Product Labels and Symbols	Description	Product Labels and Symbols	Description
	Product No.		Product lot No.
	Date of manufacture		Storage condition: 2°C~8°C
	Valid till		See the instructions for details
SuperCulture	Product trademark		Storage condition: -25°C~-10°C
	Manufacturer	/	/

[Company Information]

Manufacturer and after-sales service unit Name:

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