SUPERCULTURE GF20 Plus MSC Xeno-Free SFM

Cat#：6914132/6914142

[Product Name]
GF20 Plus MSC Xeno-Free SFM

[Product Description]
GF20 Plus MSC Xeno-Free SFM is a medium for Human Mesenchymal Stem Cells (hMSCs), which is no serum or animal origin compositions. It can be used for primary culture and subsequent amplification and passage culture of mesenchymal stem cells from the tissue such as umbilical cord, and maintain their trilineage differentiation potential into mesoderm. This product has superior proliferation promoting ability and short doubling time, which can save precious primary cells and experiment time for you.

[Model & Specification]

Product Name	Cat. No.	Model	Size	Compone-nts No.	Components Name	Compone-nts Size	Quantity
GF20 Plus MSC Xeno-Free SFM	6914132	Type A	500 mL/kit	XC0007A	M200 Serum-Free Medium (Type A)	490 mL	1 bottle
				6122113	F20 Plus MSC Supplement	10 mL	1 bottle
	6914142	Type B	500 mL/kit	XC0008A	M200 Serum-Free Medium (Type B)	490 mL	1 bottle
				6122113	F20 Plus MSC Supplement	10 mL	1 bottle

*** Type A (with phenol red), and Type B represents "no phenol red".**

[Product Parameters]

Classification	Serum-free
Sodium Glutamate	Containing glutamine
Antibiotics	No antibiotics
HEPES Buffer	No HEPES
Sodium Bicarbonate Buffer	Containing sodium bicarbonate

[Storage Conditions and Validity Period]
This product contains two components with different storage requirements:
- M200 Serum-Free Medium: Keep away from light at 2℃~8℃, valid for 1 year;
- F20 Plus MSC Supplement: Keep away from light at -15℃~ -25℃, valid for 1 year;
- The complete medium: Keep away from light at 2℃~8℃, valid for 2 weeks.

[Product Features]
- The product adopts the serum-free medium, which greatly reduces the variation between batches;
- The product contains no exogenous animal protein composition, which greatly reduces the risk of contamination by mycoplasma and the like;
- The product is suitable for hMSCs primary separation and subsequent amplification and passage culture of human mesenchymal stem cells from a variety of tissues such as umbilical cord,

bone marrow and fat, and the cultured cells can be used for production or scientific research;
- The product has high amplification efficiency, which saves the culture time;
- The product can maintain the trilineage differentiation capacity of hMSCs;
- A culture plate does not need to be wrapped in the culture process.

[Directions for Use]

Preparation:

1. It is recommended to thaw the F20 Plus MSC Supplement at room temperature (15℃ ~ 25℃) or thaw it overnight in a refrigerator (2℃ ~ 8℃). If necessary, the Supplement can be subpackaged in sterile conditions and stored at -15℃~-25℃.
2. Thaw 10 mL of F20 Plus MSC Supplement completely in sterile conditions, and add it into 490 mL of M200 Serum-Free Medium to prepare a complete medium with a total volume of 500 mL.

**Tips: If necessary, the user can prepare a required dosage in proportion, or add antibiotics by oneself, for example, add penicillin/streptomycin into the complete medium at a dilution ratio of 1:100.*

Cell Culture:

1. Count the Human Mesenchymal Stem Cells (hMSCs) harvested from resuscitation or passage;
2. Add the medium to a desired cell concentration and inoculate the cells into a culture bottle (the generally recommended cell inoculation density is $0.4\times10\sim1.0\times10^4$ cells/cm^2) for culture.
3. Culture Conditions: 5%CO_2, and 37℃;
4. Change the medium every 2~3 days according to the cell growth, and the cells can be digested when they are 80%~90% confluent;
5. Cell Dissociation Method: Pour out the medium in the culture bottle, and clean the cells stuck to the wall twice with PBS or normal saline; it is recommended to spread 0.05% trypsin or a trypsin substitute (e.g., Biosci Trypsin Solution) over the bottom of the culture bottle; incubate the cells in an incubator at 37℃ for 1~3 min, add the complete medium with a dosage of more than 5 times of that of the trypsin to terminate digestion, transfer the cell suspension into a centrifugal tube, and conduct centrifugation at 210 ×g for 4 min. The precipitate is the required cells.
6. Count the cells, and harvest them directly, or further inoculate and culture them as required.

[Notes]

- If the Supplement in this product cannot be used up at one time, it can be subpackaged and stored in a freezing mode, but it shall not be frozen and thawed repeatedly, and shall be used within the validity of the product. After the complete medium is prepared by mixing, it is recommended to be stored away from light at 2℃ ~ 8℃ and used up within two weeks, and attention shall be paid to operate in sterile conditions.
- As the product has high amplification efficiency, the recommended cell inoculation density is $0.4\times10\sim1.0\times10^4$ cells/cm^2, and the user may determine the cell inoculation density as required and according to the actual situation.
- Compared with a medium containing serum, this product contains no serum, so the trypsin digestion terminating effect is poor, and excessive trypsin residue will cause damage to cells. Therefore, it is recommended to use 0.05% trypsin or a trypsin substitute for digestion when this product is used for cell culture and passage, thus to reduce the damage to cells.
- The cell culture effect of this product may vary depending on cell sources, storage conditions, sample quality and operator experience.
- This product is a GMP-Grade product for subsequent manufacturing and laboratory use.

[Description of Product Symbol]

Product Symbol	Description	Product Symbol	Description
REF	Catalogue number	LOT	Batch code
	Date of manufacture		Use-by date
	Manufacturer		Temperature limitation
	Keep away from sunlight		Consult instructions for use

[Related Products]

Product Name	Cat. No.	Size
DPBS	6062011	500 mL/bottle
Trypsin Solution	6063111	100 mL/bottle
Serum-Free Cell Freezing Medium	6032011	100 mL/bottle
Mesenchymal Stem Cell Adipogenic Differentiation Medium	6114531	200 mL/kit
Mesenchymal Stem Cell Osteogenic Differentiation Medium	6114541	200 mL/kit
Mesenchymal Stem Cell Chondrogenic Differentiation Medium	6114551	200 mL/kit
Alizarin Red S Staining Kit	4060611	100 mL/kit
Oil Red O Staining Kit	4060711	100 mL/kit
Alcian Blue Solution	4060811	100 mL/bottle

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