MSI081Mu12

Medium for Mouse Visceral Preadipocytes adipogenic induction differentiation

Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Revised in Feb, 2024)

[Description]

Mouse Visceral Preadipocytes adipogenic induction differentiation medium was specially prepared for mouse visceral preadipocyte induction differentiation.To develop and optimize the formulation of differentiation reagents according to the characteristics of mouse visceral preadipocytes, it can increase the adipogenic differentiation effect of mouse visceral preadipocytes.

This product is a liquid medium free of mycoplasma, bacteria and fungi. Contains serum components and is intended for scientific research purposes only, not for diagnostic, therapeutic, clinical or other purposes.

[Components]

The medium for adipogenic induction differentiation of mouse visceral preadipocytes was composed of adipogenic induction differentiation A and adipogenic induction differentiation B.

Lipid induction differentiation medium A 200ML

Constituent	Added volume
Basal Medium For Visceral Preadipocytes Adipogenic Differentiation A	177ml
Fetal Bovine Serum For Visceral Preadipocytes Adipogenic Differentiation	20ml
Supplement For Mouse VPAs Adipogenic Differentiation A①	2.8ml
Supplement For Mouse VPAs Adipogenic Differentiation A②	200 µl

Lipid induction differentiation medium B 200ML

Constituent	Added volume
Basal Medium For Visceral Preadipocytes Adipogenic Differentiation B	177.2ml
Fetal Bovine Serum For Visceral Preadipocytes Adipogenic Differentiation	20ml
Supplement For Mouse VPAs Adipogenic Differentiation B	2.8ml

[Storage]

Store the basal medium at 4℃, Adipogenic Differentiation A and B Supplement, Fetal Bovine Serum at -20℃.

Protect from light.

[Shipping]

Basal medium : Ice pack transport. Adipogenic Differentiation A and B Supplement, Fetal Bovine Serum: dry ice.

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[Usage]

Preparation of medium for Mouse Visceral Preadipocytes adipogenic induction differentiation

1. Preparation: defrost the serum at 4℃ until it is completely melted. Thaw each supplement at room temperature until completely melted, shaking gently, mixed, short centrifugation, so that all reagents can be collected to the bottom of the tube.

2. Liquid A configuration: FBS, A①, A② are successively added to the basic medium A; Mix and mark, ready to use.

3. Liquid B configuration: FBS and B are successively added to the base medium B; Mix and mark, ready to use.

Note: There is no difference between the two FBS.

Operation guidance of adipogenic induction differentiation of Mouse Visceral Preadipocytes

This adipogenic induction operation guide takes the six-well plate as an example:

1. When the fusion degree of your Mouse Visceral Preadipocytes reaches 80-90%, it can be digested with 0.25% pancreatic enzyme.

2. The digested Mouse Visceral Preadipocytes were counted and inoculated into six-well plates with a cell density of 2-3×10^4cells/cm^2 according to the counting results, and 2ml complete culture medium of Mouse Visceral Preadipocyte was added to each well.

3. The uniformly inoculated Mouse Visceral Preadipocyte were cultured in an incubator at 37℃ and 5%CO2.

4.When the degree of cell fusion reached 100% (cell supersaturation was conducive to stimulating the adipogenic potential of Preadipocytes), the complete medium was carefully sucked out of the pores and 2mL of Mouse Visceral Preadipocytes adipogenic induction differentiation medium A solution was added to the six-well plate.

5.After 2-3 days of induction by liquid A, the induced complete medium of six well plates was sucked away, and 2mL of Mouse Visceral Preadipocytes adipogenic induction differentiation medium B solution was added to maintained for 1 day.

6. After 3-5 times of induction alternately with medium A and B, when obvious and sufficient lipid droplets were observed in preadipocytes, the culture could be continued with liquid B for 3-6 days (liquid changes every 2-3 days), until the direct lipid droplets became large and full enough, the induction could be ended, and the cells could be stained and subsequently identified according to the experimental requirements

Note:

- *To ensure the effectiveness of the product, please avoid repeated freezing and thawing.*
- *The prepared induction medium is stored at 2-8℃ and valid for 2 weeks. Please prepare the medium according to the experimental dosage.*

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[Important note]

- In order to maintain the best use effect of this product, do not place it in room temperature or high temperature environment for a long time.
- This product is for scientific research use only. It is not for diagnostic, therapeutic, clinical, family and other purposes.
- Because the composition of the medium is more, please pay strict attention to aseptic operation during the preparation process.
- The alternating induction of A and B is to reduce the effect of reagents in liquid A on stem cells. If your preadipocytes are in A good state, you can use only liquid A for stimulation induction in the first 7 days (replace fresh liquid A every 3 days in the middle), and then perform the alternating induction operation of the two media after the rapid appearance of fat droplets.

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