

## Product Information

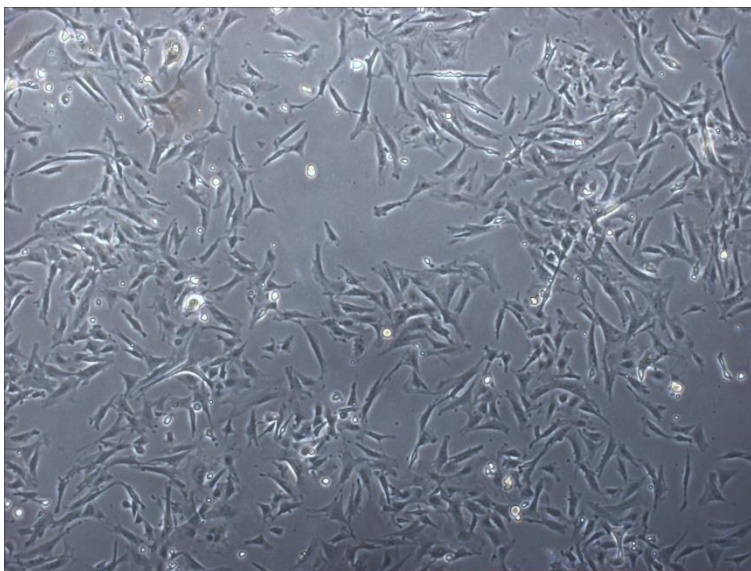
### Mouse Dermal Fibroblasts –adult (MDFB-a)

Catalog Number	10MU-019	Cell Number	0.5 million cells/vial
Species	<i>Mus Musculus</i>	Storage Temperature	Liquid nitrogen

## Product Description

Fibroblasts are the most common cells in connective tissue, and their main function is to continuously secreting extracellular matrix proteins such as collagens, glycoproteins and glycosaminoglycans to maintain the structural integrity of the connective tissue. Dermal fibroblasts play critical role during wound healing by producing extracellular matrix and wound healing mediators <sup>[1,2]</sup>. Therefore, dermal fibroblasts are well suited for wound healing studies. They can be used for wound healing studies and dermatological research to investigate various skin diseases. Additionally, fibroblasts are important for tissue regeneration, cancer research and tissue engineering studies.

**iXCells Biotechnologies** provides high quality primary Mouse Dermal Fibroblasts -adult (MDFB-a), which are isolated from the dermis of mouse skin and cryopreserved at P1, with >0.5 million cells in each vial. MDFB are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi. They can further expand for 3 population doublings in Fibroblast Growth Medium (Cat# MD-0011) under the condition suggested by iXCells Biotechnologies.



**Figure 1.** Phase contrast image of primary Mouse Dermal Fibroblasts-adult (MDFB-a).

## Product Details

<b>Tissue</b>	Mouse skin
<b>Package Size</b>	0.5 million cells
<b>Passage Number</b>	P1
<b>Shipped</b>	Frozen
<b>Storage</b>	Liquid nitrogen
<b>Growth Properties</b>	Adherent
<b>Media</b>	Fibroblast Growth Medium (Cat# MD-0011)

## Protocols

### Thawing of Frozen Cells

1. Upon receipt of the frozen cells, it is recommended to thaw the cells and initiate the culture immediately in order to retain the highest cell viability.
2. To thaw the cells, put the vial in 37°C water bath with gentle agitation for 1-2 min. Keep the cap out of water to minimize the risk of contamination.
3. Pipette the cells into a 15 mL conical tube with ~5 mL fresh **Fibroblast Growth Medium** (Cat# MD-0011).
4. Centrifuge at 1,000 rpm (~220 g) for 5 minutes under room temperature.
5. Remove the supernatant and resuspend the cells in Fibroblast Growth Medium.
6. Transfer the cells into tissue culture dishes and place them in 37°C incubator (5% CO<sub>2</sub>) for continuous culture. Change medium every other day until cells reach about 80-90% confluency.

**Safety Precaution:** *it is highly recommended that protective gloves and clothing should be used when handling frozen vials.*

## References

- [1] Akita S, Akino K, Imaizumi T, Hirano A. Wound Repair Regen.(2008),16(5):635-641. Basic fibroblast growth factor accelerates and improves second-degree burn wound healing.
- [2] Nolte SV1, Xu W, Rennekampff HO, Rodemann HP. *Cells Tissues Organs.* (2008);187(3):165-76. Diversity of fibroblasts--a review on implications for skin tissue engineering.

## Disclaimers

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