

Product Description

Skeletal muscle regenerates by the proliferation of mononuclear myogenic precursor cells called myoblasts that ultimately fuse and become incorporated into multinucleated myotubes. The myotubes then later mature into myofibers. This process occurs during the embryonic histogenesis of muscle, in postnatal muscle regeneration in response to injury, or in diseases such as Duchenne muscular dystrophy. The fusion of myoblasts is specific to skeletal muscle and myoblasts that do not form muscle fibers differentiate into satellite cells. Skeletal muscle myoblasts express the FGF receptor [1] and IGF expression is increased during myoblast differentiation in culture [2, 3]. The human skeletal muscle myoblast culture is a convenient in vitro model for the study of cellular development and differentiation, insulin metabolism and tissue repair.

iXCells Biotechnologies provides high quality Human Skeletal Muscle Myoblasts (HskMM), which are isolated from human muscle of the pectoral girdle and cryopreserved at P1, with >0.5 million cells in each vial. HskMM express myosin, actin and actinin. These HskMM are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi and can further expand for 12 population doublings in Skeletal Muscle Cell Growth Medium (Cat# MD-0052) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Human muscle of the pectoral girdle
Package Size	0.5 million cells/vial
Passage Number	P1
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Skeletal Muscle Cell Growth Medium (Cat# MD-0052)

References

- [1]. Olwin BB, Hauschka SD. (1986) Identification of the fibroblast growth factor receptor of Swiss 3T3 cells and mouse skeletal muscle myoblasts. *Biochemistry* 25(12):3487-92.
- [2]. Tollefsen S, Lajara R, McCusker RH, Clemmons DR, Rotwein P (1989) Insulin-like growth factors in muscle development. *J Biol Chem* 264:13810-13817.
- [3]. Kou Kou, Rotwein PS (1993) Transcriptional activation of the insulin-like growth factor-II gene during myoblast differentiation. *Mol Endocrinol* 7:291-302.

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