Media Selection Guide

Choose the right media for your research

Consistent and reproducible cell cultures are critical to experimental success. That's why Cook MyoSite's MyoTonic™ and CryoTonic™ media products are designed to meet the highest standards of quality: to make cell growth, differentiation, and cryopreservation as reliable as possible in your lab.

Cook MyoSite's media formulations have been developed using decades of experience developing clinical muscle-related technologies. These medias have been optimized for use with Cook MyoSite skMDC Skeletal Muscle-Derived Cells, but they are designed to promote the growth of myogenic cells in any culture. Our MyoTonic™ Family of Culture Media includes standard, insulin-free, and serum-free varieties to suit your specific needs.

To order media:

- Scan the QR Code,
- Email researchsales@cookmyosite.com
- Call 412-225-3956

SCAN CODE:

- **Place an order**
- **Find detailed product information**
- **Contact Customer Service**

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** This product is a non-stock item and will be manufactured upon request. Contact researchsales@cookmyosite.com for more details.

Created to Fit Your Needs

Many labs' needs differ when it comes to media, so we offer a variety of media types. Those looking to propogate skMDC may only need general media, supplement, and cryopreservation media. Others may want to differentiate their skMDCs right away instead of preserving them. Additionally, some labs may require control over insulin concentrations or which serum is used.

Cook MyoSite provides solutions for all of these situations. See the table for our recommendations.

Expand cells and freeze for later use

This is the most common application for Cook MyoSite media products. To grow and freeze cells for general experimental purposes, use:

- **MB-2222** MyoTonic™ Basal Medium
- **MS-3333** MyoTonic™ Growth Supplement
- **CR-9999** CryoTonic™ Cryostorage Medium

Culture cells using your own serum

This is useful for researchers that need control over the components in their serum and for customers facing import restrictions on serum. To culture cells using your own serum, use:

- **MB-2222** MyoTonic™ Basal Medium
- **MS-8888** MyoTonic™ Serum-Free Growth Supplement
- **MD-9999** MyoTonic™ Serum-Free Differentiation Media (if differentiating)

Differentiate cells into myotubes

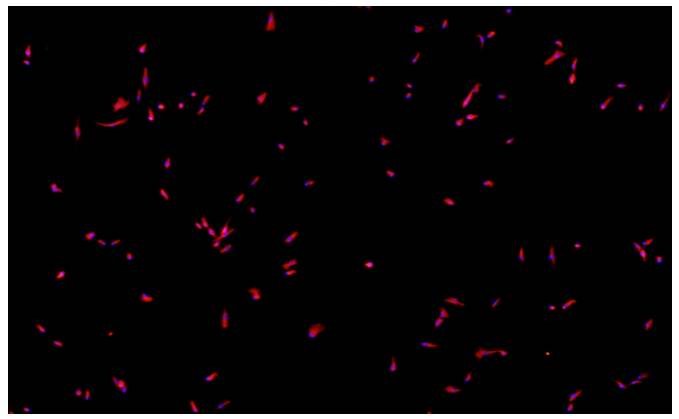
Differentiating cells into myotubes is a two-stage process in which cells are initially grown in Basal Medium and then switched to Differentiation Medium. To differentiate into myotubes, use:

- **MB-2222** MyoTonic™ Basal Medium
- **MS-3333** MyoTonic™ Growth Supplement
- **MD-5555** MyoTonic™ Differentiation Media

Vary insulin levels in cell culture

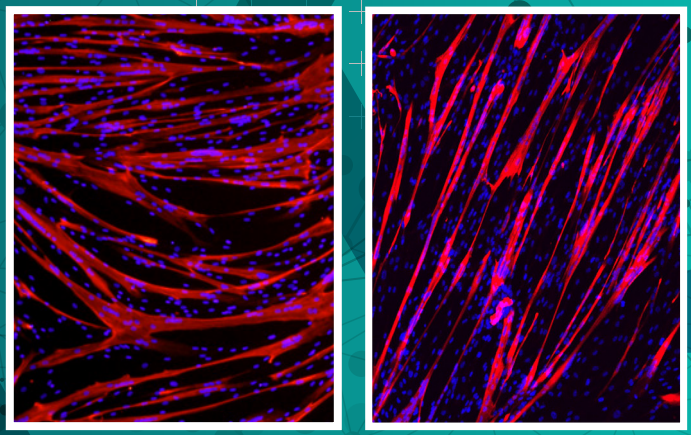
Researchers that require the ability to modulate insulin levels will find our insulin-free medium useful. To culture cells with specific levels of insulin, use:

- **ML-6666** MyoTonic™ Insulin-Free Basal Medium**
- **MS-3333** MyoTonic™ Growth Supplement



Cook MyoSite skMDC Skeletal Muscle Derived Cells (above) grown in MB-2222 Basal Medium with 20% MS-3333 Growth Supplement and labeled with Desmin (red) and DAPI (blue).

Cook MyoSite skMDC Skeletal Muscle-Derived Cells (below) labeled with Myosin Heavy Chain (Red) and DAPI (blue) demonstrate robust differentiation in MD-5555 Differentiation Media.



Selected Publications

Reference the below publications for examples of Cook MyoSite media products in use.

1. Owens J, Moreira K, Bain G. Characterization of primary human skeletal muscle cells from multiple commercial sources. In Vitro Cellular & Developmental Biology – Animal 2013;49(9): 695-705

2. Tchao J, Kim JJ, Lin B, Salama G, Lo CW, et al. Engineered Human Muscle Tissue from Skeletal Muscle Derived Stem Cells and Induced Pluripotent Stem Cell Derived Cardiac Cells. International Journal of Tissue Engineering 2013;2013: 198762

3. Duffy RM, Sun Y, Feinberg AW. Understanding the Role of ECM Protein Composition and Geometric Micropatterning for Engineering Human Skeletal Muscle. Annals of Biomedical Engineering 2016;44(6): 2076-2089

4. Vila OF, Uzel SGM, Ma SP, et al. Quantification of human neuromuscular function through optogenetics. Theranostics. 2019;9(5):1232–1246. doi:10.7150/thno.25735

5. Liqing L, Sherry CM, Jascha P, et al. HDAC4 Controls Muscle Homeostasis through Deacetylation of Myosin Heavy Chain, PGC-1α, and Hsc70. Cell Reports. 2019;29(3):749-763.e12. doi:10.1016/j.celrep.2019.09.023.

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