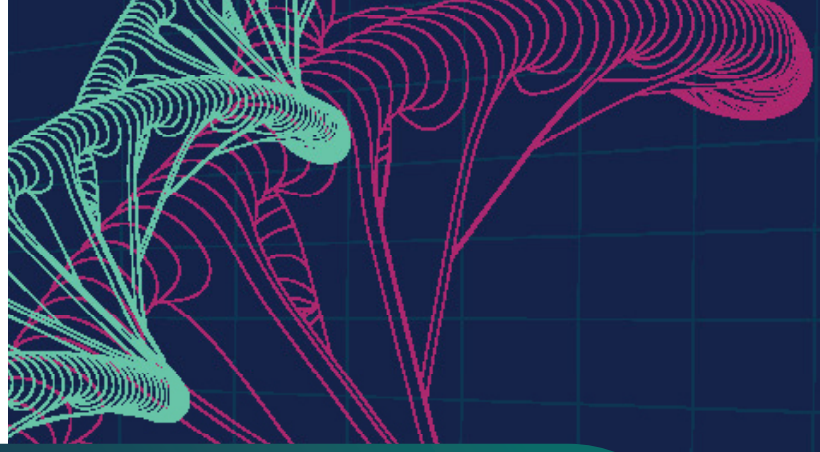


Applied StemCell

PRODUCT DATA SHEET

iPSC-Derived Human Myoblast Kit

(African-American, Male Line)

Catalog No. ASE-9706-1 RUO • Rev. 1 | August 2026

Product Overview

Applied StemCell has developed an efficient integration-free method to differentiate high-quality myoblasts from human iPSCs, with further differentiation into myotubes and skeletal muscle cells. The differentiated myoblasts recapitulate key phenotypic and functional characteristics of primary and in vivo myoblasts. ASE-9706-1 contains cryopreserved myoblasts differentiated from the integration-free control human iPSC line ASE-9211, reprogrammed from fibroblasts of an African-American male donor. These high-purity (≥90%) cells express high levels of the myoblast biomarkers CD56, Pax7, and Myogenin (Figure 1) and form mature myotubes, characterized by elongated, multi-nucleated structures and expression of the myotube marker α-MHC (Figure 2), in 4–6 days. Optimized, serum-free Myoblast Culture Media (ASE-9706MBM) and Myotube Formation Media (ASE-9706MTM) support robust maintenance and functionality of myoblasts and myotubes in culture.

Key Features & Benefits

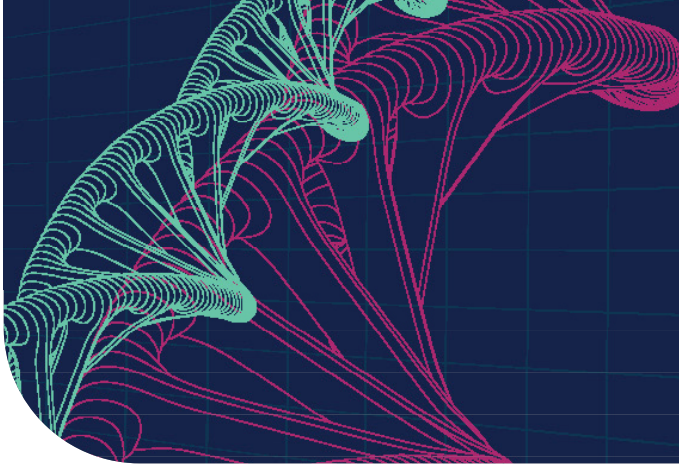
Feature	Benefit
Ready-to-use format	Reduces differentiation setup time and supports faster experimental starts.
High purity (≥90%)	Supports consistent, interpretable assay performance.
Defined donor background	Enables traceable use in disease modeling and comparative studies.
Marker-confirmed phenotype	Documents myoblast identity through CD56, Pax7, and Myogenin, and myotube formation through α-MHC.
Matched culture media	Separate myoblast culture and myotube formation media support maintenance and differentiation to myotubes.

Applications

- Muscle biology and muscular disease research
- Muscle regeneration studies
- Co-culture models with motor neurons (ASE-9701)
- Control for patient-derived or genome-edited iPSC-derived myoblasts and myotubes
- Toxicity testing and drug screening

Product Specifications

Product Type	RUO
Cell Type	Human iPSC-derived myoblasts
Parental Line / Background	Control human iPSC line ASE-9211 (Normal, Male, African American, Neonate); dermal fibroblasts; episomal reprogramming; feeder-free culture.
Format	Cryopreserved cell kit
Quantity	≥1 × 10^6 cells/vial
Storage	Ships on dry ice. Cells: liquid nitrogen; culture media: −20°C.
Shelf Life	12 months for cells and media components when stored as directed. See lot-specific CoA / component labeling.



Quality Control Summary

Each lot is released against the following quality criteria. Lot-specific results are provided on the accompanying Certificate of Analysis (CoA).

- **Post-thaw viability, recovery, and growth**
- **Cell purity: ≥90%**
- **Phenotype / identity markers: CD56, Pax7, and Myogenin**
- **Mycoplasma and pathogen testing**

Supporting Data

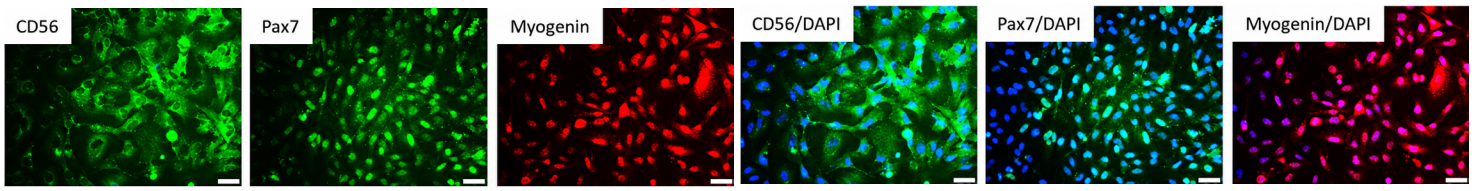


Figure 1. Immunostaining of ASE-9706 iPSC-derived myoblasts for myoblast biomarkers. Cryopreserved myoblasts differentiated from the Applied StemCell control iPSC line ASE-9211 were recovered in myoblast culture media and stained for CD56, Pax7, and Myogenin on day 2 after recovery. DAPI: nuclear counterstain (blue). Images at 20x magnification.

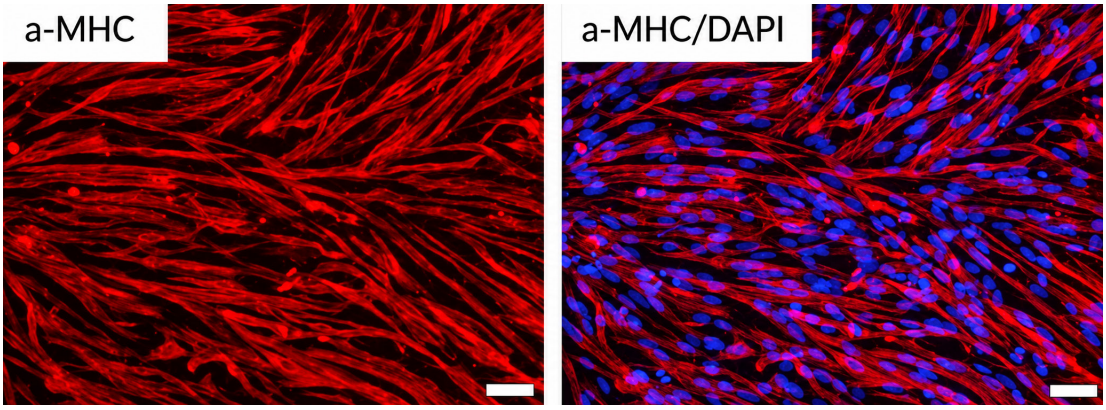
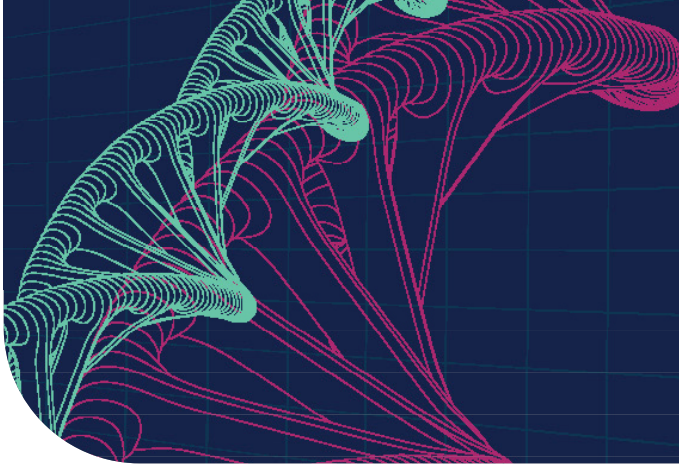


Figure 2. Immunostaining of myotubes derived from ASE-9706 iPSC-derived myoblasts for a myotube biomarker. Cryopreserved myoblasts were recovered in myoblast culture media until confluent and then switched to Myotube Formation Media for 4 days. Cells were stained for the myotube marker α-MHC on day 4. DAPI: nuclear counterstain (blue). Images at 20x magnification.



Ordering Information

Catalog No.	ASE-9706-1
Description	iPSC-Derived Human Myoblast Kit; African-American Male Line
Format	Kit
Pack Size	1 each

Kit Components

Catalog No.	**ASE-9706-C**
Description	iPSC-Derived Myoblasts; African-American Male Line
Format	Cells
Pack Size	≥1 × 10^6 cells/vial

Catalog No.	**ASE-9706MBM**
Description	Myoblast Culture Media
Format	Media
Quantity	100 mL

Catalog No.	**ASE-9706MTM**
Description	Myotube Formation Media
Format	Media
Quantity	100 mL

Product Use & Storage

For research use only. Store each component immediately upon receipt under the conditions shown above. Shelf life is contingent on proper storage; refer to component labeling and the lot-specific CoA.

Related Products

- **ASE-9211 – Control human iPSC line (African-American male)**
- **ASE-9701-1 – iPSC-Derived Human Motor Neuron Kit**
- **Contact Applied StemCell for compatible media and related cell models.**



Applied StemCell

Let's advance your research.

Applied StemCell powers your basic, autologous, and allogeneic research and development with 15+ years of iPSC experience, proven GMP know-how, and proprietary TARGATT™ gene editing technology, which takes over where CRISPR/Cas9 ends.

Contact & Ordering

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info@appliedstemcell.com

+1 866.497.4180

Ready to accelerate your genome engineering project?

Scan the QR code or visit our website to explore product details, access technical resources, discover related TARGATT™ solutions, and request a consultation with our scientific team.

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© 2026 Applied StemCell, Inc. Inserted constructs must be shown to be expressed in iPSCs or the differentiated cell type.