



Applied StemCell

PRODUCT DATA SHEET

iPSC-Derived Motor Neurons With Media

Catalog No. ASE-9701-1 & ASE-9701-6 RUO • Rev. 4 | August 2026

Product Overview

Applied StemCell uses an integration-free, small molecule-based differentiation method to generate high-quality motor neurons from human iPSCs. Supplied as cryopreserved late-stage precursors, the cells show neurite outgrowth within 2–7 days after thaw and mature within approximately 5 days. Each lot is $\geq 90\%$ pure and is characterized for motor-neuron markers. Donor-specific options include ASE-9701-1, derived from the ASE-9211 control iPSC line (African American, male, neonate; dermal fibroblast origin), and ASE-9701-6 (Asian, male, adult; PBMC origin). Matched serum-free motor-neuron culture media support post-thaw recovery, maintenance, and functionality.

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	Provides documented identity and quality for each released lot.
Matched culture reagents	Supports recovery, maintenance, and reproducible cell performance.

Product Specifications

Product Type	RUO
Cell Type	Human iPSC-derived motor neurons (cryopreserved late-stage precursors)
Parental Line / Background	Donor-specific options: ASE-9701-1—ASE-9211 control iPSC, African American male neonate, dermal fibroblast origin; ASE-9701-6—Asian male adult, PBMC origin
Genetic Background	Normal donor lines; no known disease phenotype stated
Integration System	Not applicable; integration-free parental iPSC line
Payload Capacity	Not applicable
Format/ Quantity	Cryopreserved iPSC-derived motor neurons with matched culture media / 1 vial of 1×10^6 cells; donor-specific SKU selected at order
Storage	Cells: liquid nitrogen; basal medium and supplement: -20°C
Shelf Life	12 months at specified storage conditions; complete medium: up to 2 weeks at 4°C or 6 months at -20°C

Applications

- Motor neuron disease modeling, including ALS and SMA
- Neurotoxicity and drug screening
- Co-culture models with neurons, glia, or skeletal muscle cells
- Comparative studies using patient-derived or genome-edited iPSC lines

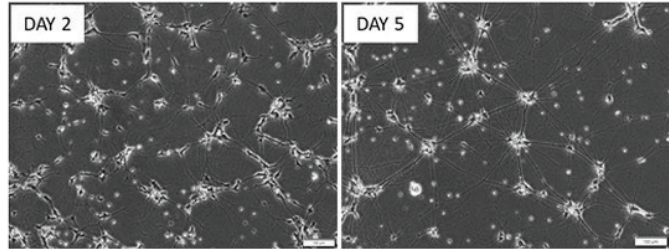
Quality Control Summary

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

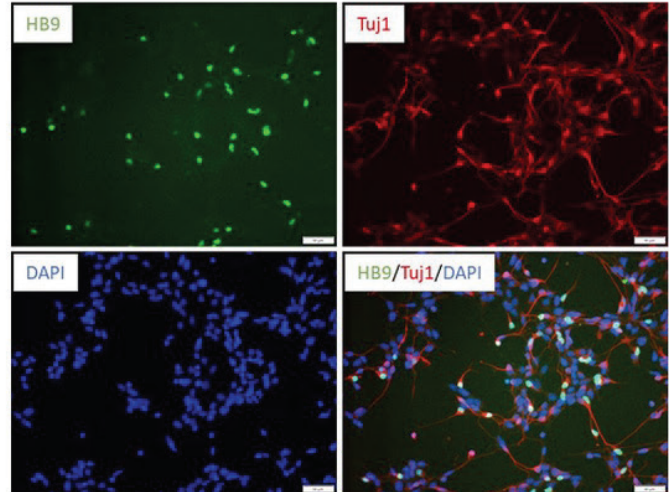
- Post-thaw growth, viability, and recovery
- Cell purity: $\geq 90\%$
- Identity markers: HB9 and Tuj1 at day 2; ChAT and MAP2 at day 5
- Absence of mycoplasma and pathogens

Supporting Data

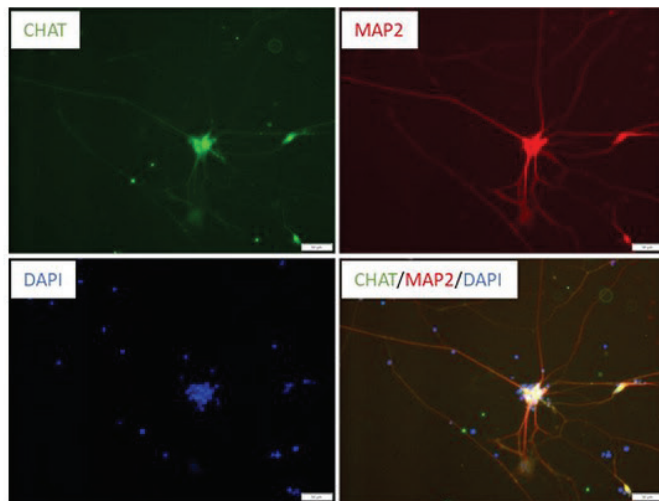
Figures 1



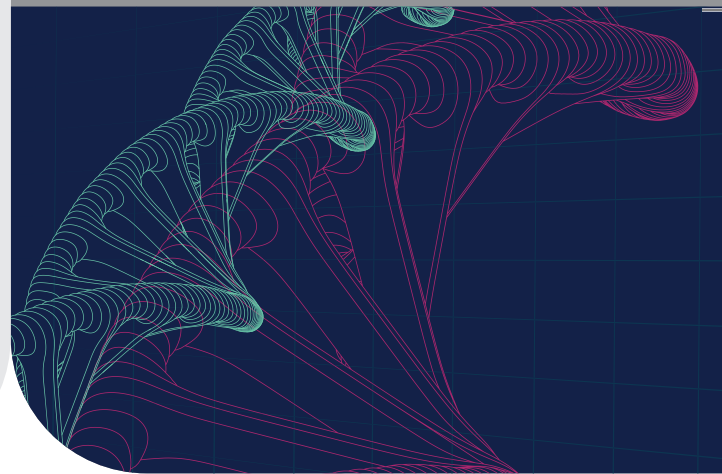
Figures 2



Figures 3



Figures 1 -3. Recovery and marker characterization of cryopreserved ASE-9701-1 iPSC-derived motor neurons from the ASE-9211 control line. Cells recover in motor-neuron culture media and show rapid maturation from Day 2 to Day 5. Early cultures express HB9 and Tuj1; mature cultures express ChAT and MAP2. DAPI is the nuclear counterstain. Images at 20 $\times$ magnification.



Kit Components

Item	Component	Format	Quantity
Selected donor SKU	iPSC-derived motor neurons	Cells	1 × 10 ⁶ cells/vial
ASE-9701MM	Motor Neuron Basal Culture Media	Media / 20 mL	95 mL
ASE-9701MM-A	Motor Neuron Culture Media Supplement A	Supplement	5 mL

Ordering Information

Catalog No.	ASE-9701-1
Description	iPSC-derived motor neurons with media—African American, male, neonate; from ASE-9211
Format	1 vial
Pack Size	1 × 10 ⁶ cells

Catalog No.	ASE-9701-6
Description	iPSC-derived motor neurons with media—Asian, male, adult; from PBMCs
Format	1 vial
Pack Size	1 × 10 ⁶ cells

Contact & Ordering

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