PRODUCT DATA SHEET

iPSC-Derived Human Astrocytes Kit

(African-American, Male Line)

Catalog No. ASE-9743 RUO • Rev. 1 | August 2026

Product Overview

Applied StemCell has developed an efficient integration-free, small molecule-based method to differentiate high-quality astrocytes from human iPSCs. The differentiated astrocytes recapitulate key phenotypic and functional characteristics of primary and in vivo astrocytes. ASE-9743 contains cryopreserved astrocytes differentiated from the integration-free control human iPSC line ASE-9211, reprogrammed from dermal fibroblasts of an African-American male donor. These high-purity (≥95%) cells express high levels of the astrocyte biomarkers GFAP and S100β (Figure 2). Optimized Astrocyte Basal Culture Media (ASE-9743MM) and Astrocyte Culture Media Supplement A (100X) (ASE-9743MM-A) support robust maintenance and functionality in culture.

Key Features & Benefits

Feature	Benefit
Ready-to-use format	Reduces differentiation setup time and supports faster experimental starts.
High purity (≥95%)	Supports consistent, interpretable assay performance.
Defined donor background	Enables traceable use in disease modeling and comparative studies.
Marker-confirmed phenotype	Documents astrocyte identity through GFAP and S100β expression.
Matched culture medium	Supports recovery, maintenance, and reproducible cell performance.

Applications

- Astrocyte biology and neuroscience studies
- Neurotoxicity assays
- Control for patient-derived or genome-edited iPSC-derived astrocytes
- Drug discovery and screening

Product Specifications

Product Type	RUO
Cell Type	Human iPSC-derived astrocytes
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 and supplement: −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: ≥95%**
- **Phenotype / identity markers: GFAP and S100β**
- **Mycoplasma and pathogen testing**

Supporting Data

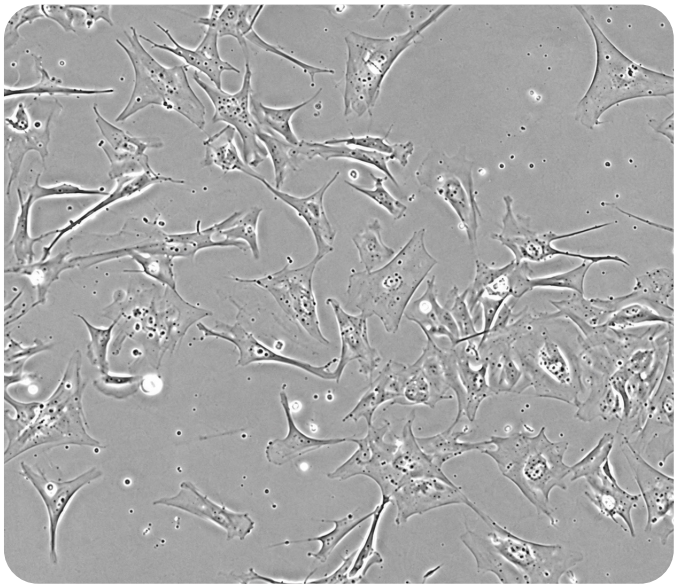


Figure 1. Bright-field image of iPSC-derived astrocytes from the Applied StemCell control line ASE-9211.

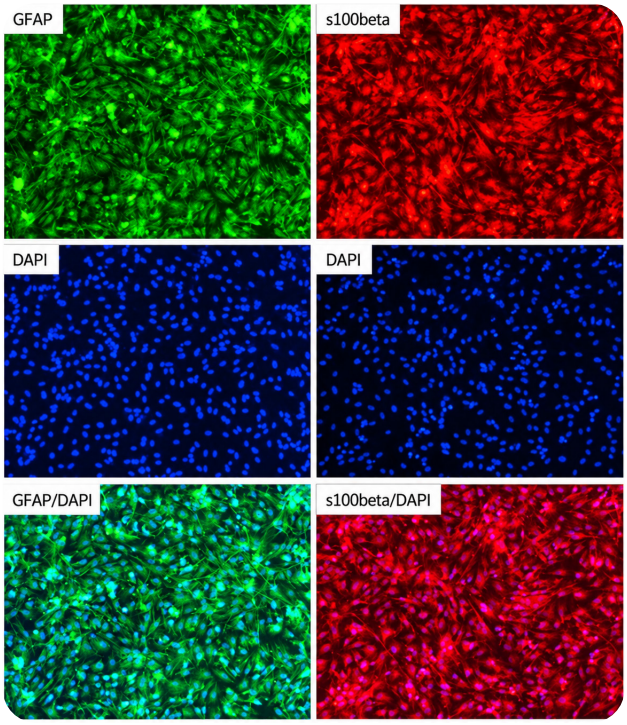
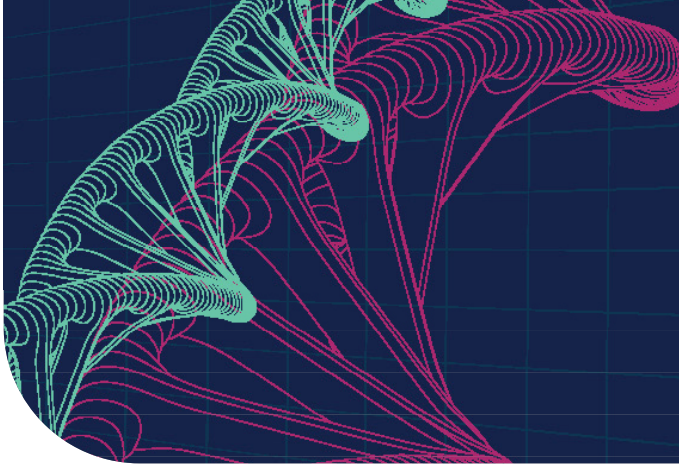


Figure 2. Antibody staining of astrocytes differentiated from the NIST control line ASE-9211 for the astrocyte markers GFAP and S100β. Left three panels: GFAP (green), DAPI (blue), and GFAP/DAPI merge. Right three panels: S100β (red), DAPI (blue), and S100β/DAPI merge.



Ordering Information

Catalog No.	ASE-9743
Description	iPSC-Derived Human Astrocytes Kit; African-American Male Line
Format	Kit
Pack Size	1 each

Kit Components

Catalog No.	ASE-9743-C
Description	iPSC-Derived Astrocytes; African-American Male Line
Format	Cells
Pack Size	≥1 × 10^6 cells/vial

Catalog No.	ASE-9743MM
Description	Astrocyte Basal Culture Media
Format	Media
Quantity	100 mL

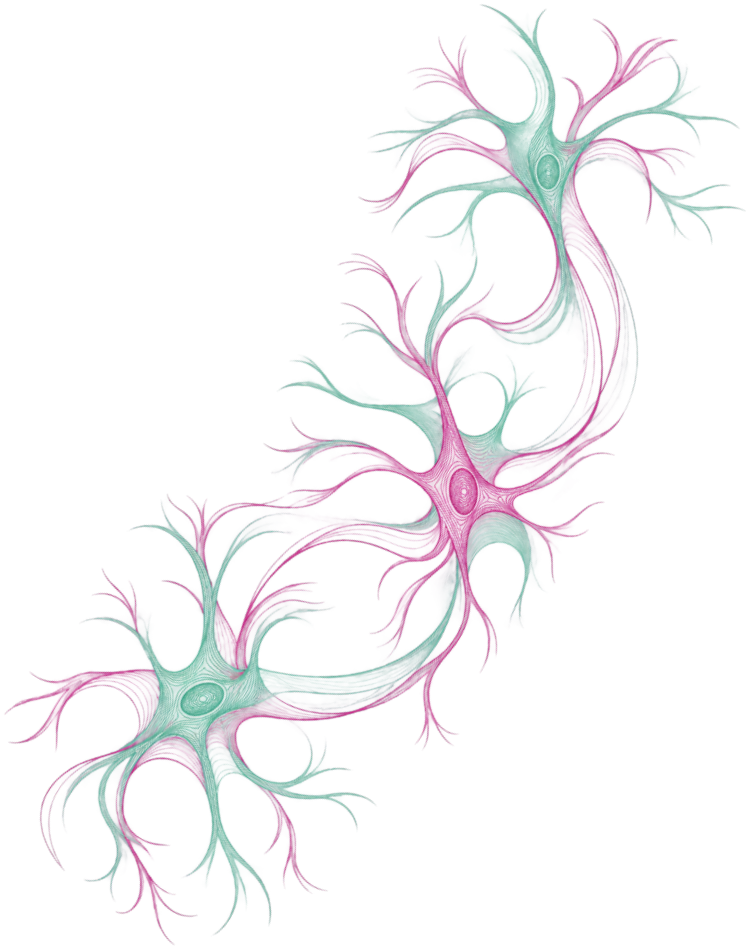
Catalog No.	ASE-9743MM-A
Description	Astrocyte Culture Media Supplement A (100X)
Format	Supplement
Quantity	50 µL

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-9741-1 – iPSC-Derived Human Cortical Neuron Kit
- Contact Applied StemCell for compatible media and related cell models.



Applied StemCell

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Contact & Ordering

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