PRODUCT DATA SHEET

iPSC-Derived Human Retinal Pigment Epithelium Kit

(African-American, Male Line)

Catalog No. ASE-9710-1 RUO • Rev. 1 I August 2026

Product Overview

Applied StemCell has developed an efficient integration-free, small molecule-based method to differentiate high-quality retinal pigment epithelium (RPE) precursor cells from human iPSCs. The differentiated RPE cells recapitulate key phenotypic and functional characteristics of primary and in vivo RPE cells. ASE-9710-1 contains cryopreserved RPE cells differentiated from the integration-free control human iPSC line ASE-9211, reprogrammed from dermal fibroblasts of an African-American male donor. These high-purity (≥90%) cells express high levels of the RPE biomarkers PMEL1, MITF, ZO-1, and RPE65 (Figure 1). Optimized RPE Culture Media (ASE-9710MM) supports robust maintenance and functionality of the RPE cells in culture.

Key Features & Benefits

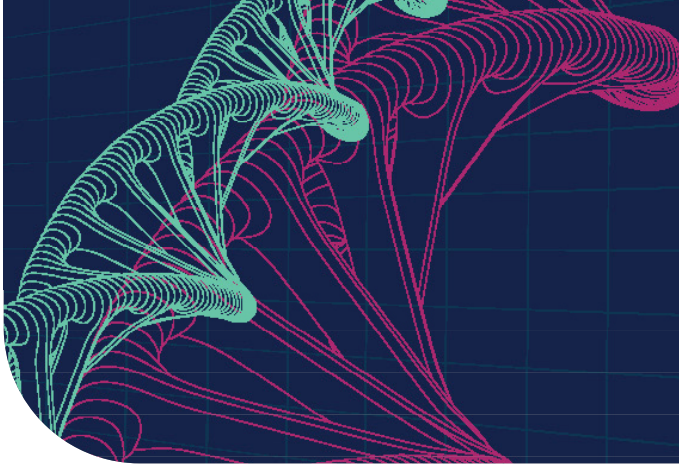
Feature	Benefit
Ready-to-use format	Reduces differentiation setup time and supports faster experimental starts.
High purity (≥90%)	Supports consistent, interpretable assay performance.
Defined donor background	Enables traceable use in disease modeling and comparative studies.
Marker-confirmed phenotype	Documents RPE identity through PMEL1, MITF, ZO-1, and RPE65 expression.
Matched culture medium	Supports recovery, maintenance, and reproducible cell performance.

Applications

- Retinal biology and retinal disease modeling
- Control for patient-derived or genome-edited iPSC-derived RPE cells
- Comparative studies
- Drug discovery and screening

Product Specifications

Product Type	RUO
Cell Type	Human iPSC-derived retinal pigment epithelium (RPE) cells
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 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: PMEL1, MITF, ZO-1, and RPE65**
- **Mycoplasma and pathogen testing**

Supporting Data

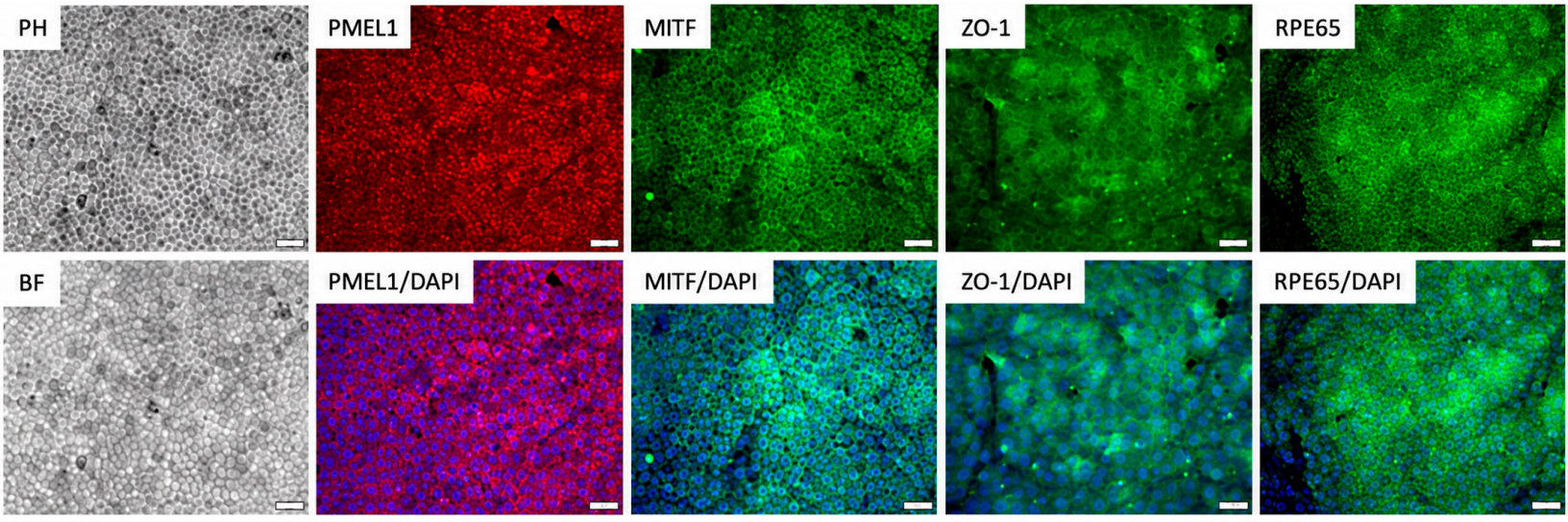
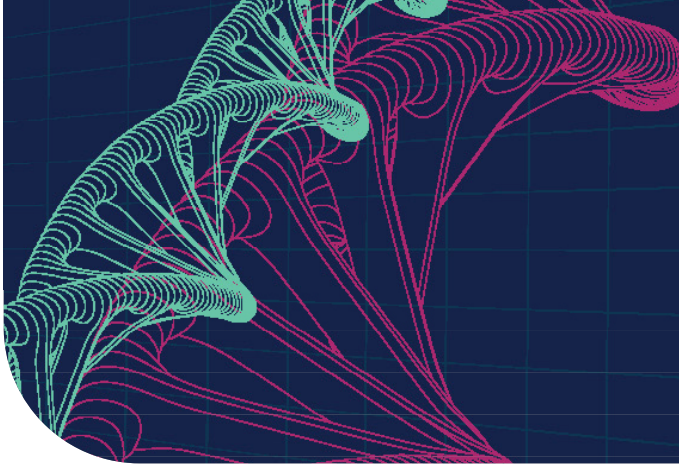


Figure 1. Immunostaining of ASE-9710 iPSC-derived RPE cells for RPE biomarkers. Cryopreserved RPE cells differentiated from the Applied StemCell control iPSC line ASE-9211 were recovered in RPE culture media and stained for PMEL1, MITF, ZO-1, and RPE65. PH: phase contrast; BF: bright field; DAPI: nuclear counterstain (blue).



Ordering Information

Catalog No.	ASE-9710-1
Description	iPSC-Derived Human Retinal Pigment Epithelium Kit; African-American Male Line
Format	Kit
Pack Size	1 each

Kit Components

Catalog No.	**ASE-9710-C**
Description	iPSC-Derived RPE Cells; African-American Male Line
Format	Cells
Pack Size	≥1 × 10^6 cells/vial

Catalog No.	**ASE-9710MM**
Description	RPE Culture 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. A ROCK inhibitor (Y27632) is recommended at plating and is not provided with the kit.

Related Products

- **ASE-9211 – Control human iPSC line (African-American male)**
- **ASE-9715-1 – iPSC-Derived Human Photoreceptor 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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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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Document No: DS-ASE-9710-1

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