Applied StemCell

PRODUCT DATA SHEET

iPSC-Derived Microglia With Media

Catalog No. ASE-9601-1 RUO • Rev. 1 I August 2026

Product Overview

Applied StemCell has developed an efficient cytokine-based method to differentiate high-quality microglia cells from human iPSCs (iMGLs), which recapitulate the phenotype and functional parameters of primary microglia and *in vivo* microglial cells. Our proprietary erythromyeloid induction protocol mimics the *in vivo* activation pathway for the development of microglia in the brain from hematopoietic stem cells. The ASE-9601-1 iMGLs are derived through directed differentiation from integration-free, control human iPSC lines reprogrammed from somatic cells of normal male donors. These high-purity (≥90%) cells express microglial-specific markers TMEM119 and P2RY12 (also referred to as P2Y12), as well as IBA1, CX3CR1, and TREM2. The cells are provided as fully differentiated, cryopreserved cells that can be readily recovered and cultured for experiments.

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 microglia
Parental Lines / Donor Variants	ASE-9601-1: Normal African American male, neonate; derived from dermal fibroblasts. ASE-9601-4: Normal Caucasian male, adult; derived from fibroblasts. ASE-9601-5: Normal Asian male, adult; derived from PBMCs.
Genetic Background	No engineered edits specified in source documentation.
Integration System	Not applicable for this iPSC or iPSC-derived cell product.
Payload Capacity	Not applicable.
Format / Quanity	Cryopreserved cell kit ≥ 1.0×10^6 cells/vial
Storage	Cells: liquid nitrogen; media/supplements: as labeled (Liq. N2, -20°C).
Shelf Life	12 months when stored as directed.

Applications

- Neuroinflammation and innate immune response studies
- Microglial phenotype and function studies
- Neurological disease modeling
- Drug discovery and screening

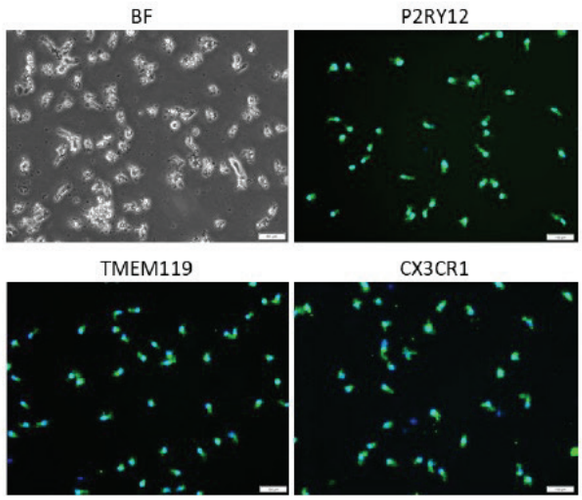
Quality Control Summary

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

- Post-thaw viability and recovery/growth
- Cell purity: 90%
- Phenotype / identity markers: TMEM119, CX3CR1+, TREM2+
- Karyotype
- Mycoplasma and microbial/pathogen testing

Supporting Data

Figure 1. Recovery of cryopreserved ASE-9601-1, iPSC-derived microglia (iMGLs). Cryopreserved iMGLs, differentiated from a control iPSC line, were recovered in microglia culture media. The cells were fixed the next day and stained with microglial-specific markers (green), P2RY12, TMEM119, and CX3CR1; counterstain (DAPI; blue) was used to stain the nuclei.



Ordering Information

Catalog No.	ASE-9601-1
Description	Human iPSC-derived microglia with media; African American male, neonate
Format / Quanity	Kit / 1

Catalog No.	ASE-9601-4
Description	Human iPSC-derived microglia with media; Caucasian male, adult
Format / Quanity	Kit / 1

Catalog No.	ASE-9601-5
Description	Human iPSC-derived microglia with media; Asian male, adult
Format / Quanity	Kit / 1

Kit Components

Catalog No.	Component	Format / Quanity
ASE-9601A-C	iMGLs	Cells / ≥ 1.0 × 10^6 cells/ vial
ASE-9601MM	Microglia Basal Medium	Media / 20 mL
ASE-9601MM-A	Microglia Medium Supplement (20×)	Supplement/ 1 mL

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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