Phenocell
Stem Cells for better Drugs

PRODUCT SHEET

Human iPSC-derived Keratinocytes — PCi-KER

Description

Product Ref. PCi-KER

Phenocell provides Keratinocytes (PCi-KER) developed from human induced pluripotent stem cells (iPSC) at low passage (P3-P4). PCi-KER are cryopreserved in the vapor phase of liquid nitrogen. A post-thaw regrowth test is performed on each batch. Viability after thawing is > 90%. Thawing and culture protocol available on demand at contact@phenocell.com. Shipping is on dry ice.

PCi-KER are available in 10^6 cell/vial format and three phototypes (Caucasian, Asian, African).

Product Information

Product	Catalog No.	Quantity	Donor
Human iPSC-derived Keratinocytes	PCi-KER_CAU_1M	10^6 cell/vial	Caucasian
Human iPSC-derived Keratinocytes	PCi-KER_ASI_1M	10^6 cell/vial	Asian
Human iPSC-derived Keratinocytes	PCi-KER_AFR_1M	10^6 cell/vial	African

- Each lot is tested for expression of melanocytes markers and for absence of mycoplasma.
- Storage conditions: Product stable at -135°C or colder. Storage in the vapor phase of a liquid nitrogen storage tank is recommended.
- Expiration: Guaranteed for up to 12 months from date of receipt if properly stored. Use cells immediately after thawing.

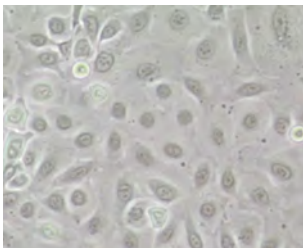
Product Use

PCi-KER are intended for in **vitro research use only** and are not to be used for any other purpose, which includes, but is not limited to, unauthorized commercial uses (See Users restrictions on p. 3), in vitro diagnostic uses, ex vivo or in vivo therapeutic uses or any type of consumption or application to humans or animals.

Quality testing and results

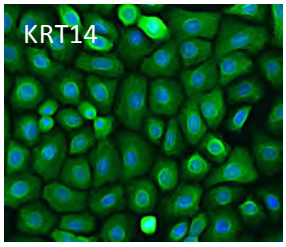
Refer to lot-specific Certificate of Analysis. PCi-KER are derived from qualified human iPSC and have been validated for morphology and high expression levels of specific markers. PCi-KER display normal karyotype and tested negative for mycoplasma before freezing.

- ***Morphology and marker expression***



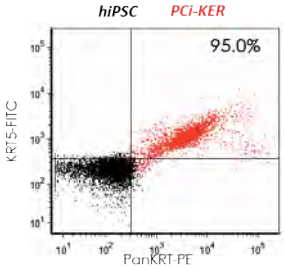
PCi-KER display an epithelial morphology with characteristic prominent dark ring around the nucleus.

- ***Immunohistochemistry for KRT14***



PCi-KER express the key marker Keratin 14 in a majority of cells

- **Purity**



Flow cytometry analysis with anti-KRT5 and anti PanKRT antibodies. PCi-KER purity is above 95%.
Black: iPSC control
Red: PCi-KER

- **Functional analysis: stratification**

Upon prolonged confluent culture, PCi-KER stratify and express mature markers such as Involucrin and Keratin 10 (KRT10). Stratification on standard tissue culture formats induces formation of fluid-filled domes (arrows), showing efficient fluid transport.

Routine culture and amplification

We recommend to culture PCi-KER in Defined Keratinocyte-SFM medium (LifeTechnologies Cat. 107440) on a collagen I matrix.

Areas of interest

Keratinocyte are derivatives of the ectoderm and represent the predominant cell type in the skin epidermis. Keratinocytes main function is to form a barrier against environmental damages and to prevent water loss. Keratinocyte disorders include hyperproliferation, defective epidermal barrier as well as basal and squamous cell carcinoma.

Areas of interest include skin research, pharmacology, toxicology and drug discovery for rare diseases.

Safety precautions

Handle the frozen vials with due caution. This product should be treated as potentially infectious and only used following appropriate handling precautions such as those described in biological safety level 2. Do not use sharps such as needles and syringes when handling this product.
Do not ingest. In case of contact with eyes, rinse immediately with plenty of water for at least 15 min and seek medical advice.
Environmental measures: soak up with inert absorbent material. Clean with bleach and rinse thoroughly. Prevent further leakage or spillage if safe to do so.
Phenocell cannot be held liable for any damage or losses resulting from the handling or from contact with the product as described herein.

Phenocell cannot guarantee the biological function or any other properties associated with performance of the product in researchers' individual culture systems.

Limited use label license

This Product is Patent Pending. See User's Notification below:

User Notification

I. Definitions;

1. PHENOCELL: Phenocell SAS
2. iPS-AJ: iPS Academia Japan, Inc.
3. User: The person or entity who purchased Product(s) from PHENOCELL or its authorized distributor.
4. Product: Cells that are differentiated from human iPS cells by PHENOCELL, and which PHENOCELL sells or transfers under the license agreement between iPS-AJ and PHENOCELL.

II. User Restrictions;

1. User may use the Product for internal research including but not limited to screening potential drug compounds for efficacy and safety, and for the provision of such services to third parties. No other right is granted to User whether expressly, by implication, by estoppel or otherwise. In particular, the purchase of the Product does not include nor carry any right or license to use, develop or otherwise exploit the Product commercially, and no rights are conveyed to User to use the Product for any other purpose.
2. User agrees to use the Product in compliance with all applicable statutes and regulations, but not to use the Product for application and use for human/animal therapeutic, diagnostic and/or prophylactic purposes including but not limited to clinical applications, cell therapy, transplantation, and/or regenerative medicine without appropriate license.
3. In case that User transfers Product to a third party, User shall convey the User Restrictions set forth herein to such a third party.

FOR RESEARCH USE ONLY. Not intended for human or animal diagnostic, therapeutic or clinical applications.