

**Human iPSC derived Melanocytes - African**

**PCi-MEL\_AFR**

**Description**

Product Ref. PCi-MEL\_AFR\_1M

Associated product: PhenoCULT®-MEL culture medium.

*Phenocell provides Melanocytes (PCi-MEL) developed from human induced pluripotent stem cells (iPSC) at low passage (p3-P4). PCi-MEL are cryopreserved in the vapor phase of liquid nitrogen. A post-thaw regrowth test is performed on each batch. Viability after thawing is > 90%. A protocol for thawing and culture is available at [PCi-MEL\\_Culture Protocol](#). Shipping is on dry ice.*

All PCi-MEL are available in 10<sup>6</sup> cell/vial format.

**Product Information**

Product	Catalog No.	Quantity	Donor
Human iPSC-derived Melanocytes	PCi-MEL_CAU_1M	10 <sup>6</sup> cell/vial	Caucasian (Phototype III-IV)
Human iPSC-derived Melanocytes	PCi-MEL_ASI_1M	10 <sup>6</sup> cell/vial	Asian (Phototype IV-V)
Human iPSC-derived Melanocytes	PCi-MEL_AFR_1M	10 <sup>6</sup> cell/vial	African (Phototype VI)

- 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.

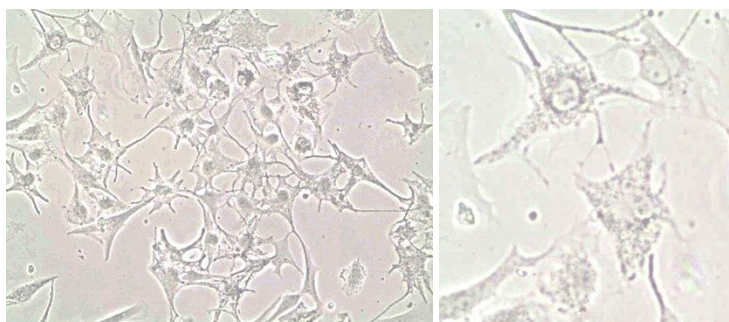
**Product Use**

PCi-MEL 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, 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**

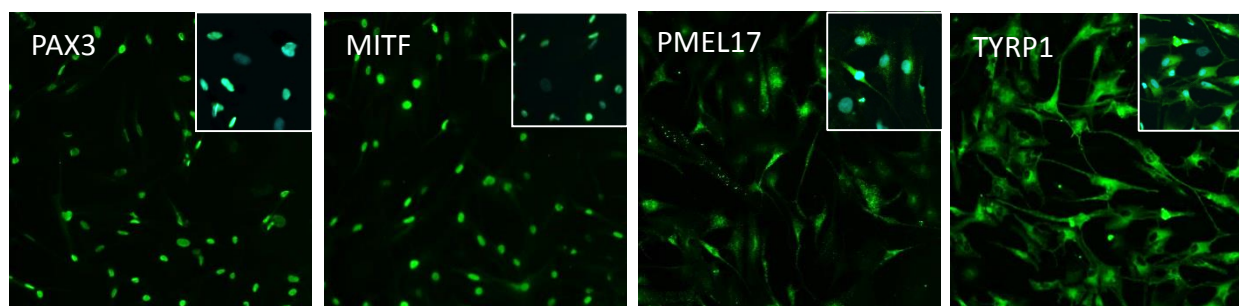
For more details, refer to lot-specific Certificate of Analysis. PCi-MEL are derived from qualified human iPSC and have been validated for morphology and high expression levels of specific markers. PCi-MEL display normal karyotype and tested negative for mycoplasma before freezing.

▪ **Morphology**



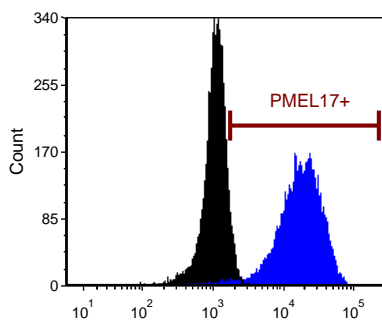
When cultured in PhenoCULT®-MEL on fibronectine, PCi-MEL\_AFR display a conspicuous pigmentation. PhenoCULT®-MEL optimizes PCi-MEL expansion. A more elongated morphology is acquired after final maturation when proliferation ceases.

▪ **Immunohistochemistry for melanocyte markers**



PCi-MEL\_AFR express key melanocyte markers, including Paired Box 3 (PAX3) and Microphthalmia associated transcription factor (MITF), Premelanosome Protein (PMEL17) and Tyrosinase Related Protein 1 (TYRP1), two proteins required for melanin production.

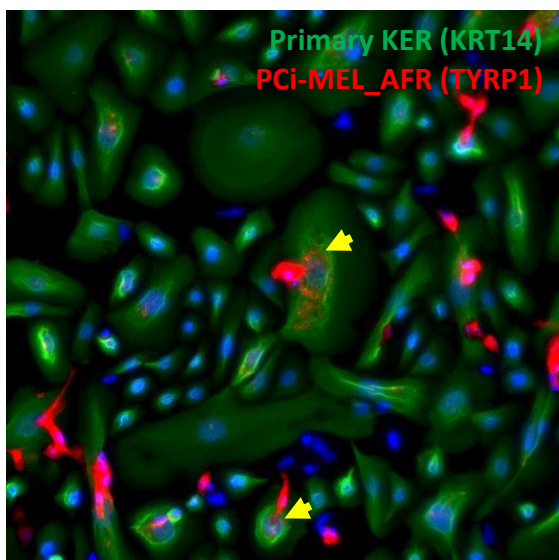
▪ **Purity by Flow cytometry**



PCi-MEL\_AFR purity is above 98% by PMEL17 expression.

*Black : isotype control ; Blue : PMEL17 antibody*

▪ **Functional analysis : Melanosomes transfer to keratinocytes**



PCi-MEL\_AFR transfer melanosomes to primary keratinocyte (pKER) as evidenced by the presence of TYRP1 labelled melanosomes within KRT14 expressing pKER (yellow arrows). TYRP1 labelled melanosomes organize around the nuclei of pKER.

**Routine culture and amplification**

We recommend PhenoCULT®-MEL for PCi-MEL\_AFR culture on fibronectin-coated tissue culture surface. All PCi-MEL also grow on primary melanocyte culture medium.

[Contact us](#) for more information and ordering PhenoCULT®-MEL (Product reference: [PhenoCULT®-MEL](#)).

**Areas of interest**

Melanocytes are distributed in the epidermis, hair follicles, mucosa, cochlea (ear), iris (eye), and mesencephalon (brain). Melanocytes produce melanin, a pigment concentrated into specialized structures, the melanosomes. Pigmentation disorders include hypopigmentation, hyperpigmentation and mixed hyper-/hypopigmentation disorders.

Areas of interest include melanocyte research, pharmacology, toxicology and drug discovery for pigmentation disorders.

**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 can not be held liable for any damage or losses resulting from the handling or from contact with the product as described herein.

Phenocell can not guarantee the biological function or any other properties associated with performance of the product in researchers' individual culture systems. Phenocell guarantees that the product will meet the specifications only when assessed immediately after thawing using the [recommended Protocol](#).

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

PCi-MEL\_AFR\_Product Sheet\_v04252016