



Human induced pluripotent stem cells PCi-CAU2

Product sheet

DESCRIPTION

Product Ref. PCi-CAU2

Phenocell provides human induced pluripotent stem cells (iPSC) at low passage to allow amplification. PCi are cryopreserved in the vapor phase of liquid nitrogen. A post-thaw regrowth test is performed on each batch. Viability after thawing is > 80%. A protocol for thawing and culture is available at PCi_Culture Protocol. Shipping is on dry ice.

PCi-CAU2 are available in 0.5 Million cell/vial format and 1 Million cell/vial format.

Product	Catalog No.	Quantity	Donor
Human induced pluripotent stem cells	PCi_CAU2	$5 * 10^5$ cell/vial	Male
Human induced pluripotent stem cells	PCi_CAU2_1M	$1 * 10^6$ cell/vial	Male

Tissue origin : Peripheral blood mononuclear cells

STORAGE

Store at -135°C or colder (vapor phase of liquid nitrogen or deep freezer) for 12 months from date of receipt. Use thawed samples immediately.

PRODUCT USE

PCi-CAU2 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.

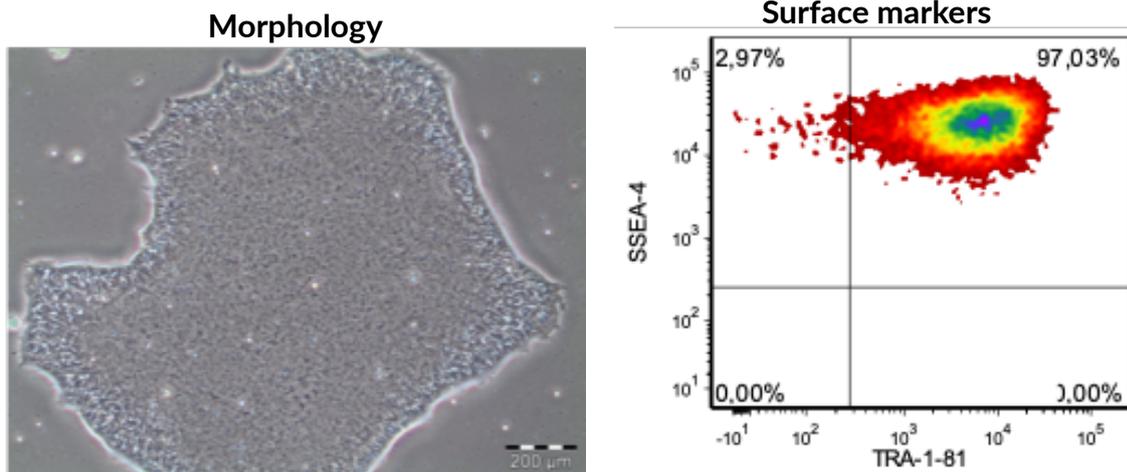
SAFETY PRECAUTIONS

These recommendations are based on prudent application of professional judgment. Wear the appropriate personal protection equipment (PPE) and handle the frozen vials with due caution. This product should be treated as potentially infectious and only used in biological safety level 2 premises and conditions. 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.



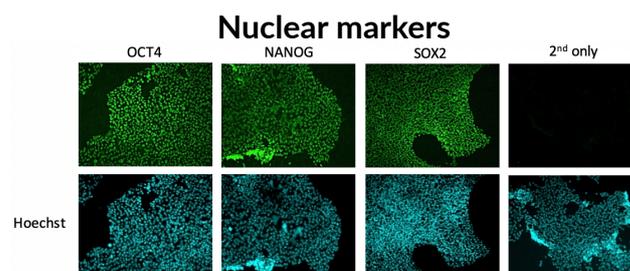
QUALITY CONTROL

Each lot of PCi_CAU2 is tested for post-thawing recovery (morphology, growth and viability). Prior to cryopreservation, PCi_CAU2 are tested for morphology, expression of pluripotency markers by immunostaining, embryoid bodies formation and differentiation into derivatives of the three germ layers. PCi_CAU2 display normal karyotype and tested negative for mycoplasma, HBV, HCV, HIV before freezing.



PCi_CAU2 compact colony formed by tightly packed cells with high nuclei / cytoplasm ratio.

Cells expressing both SSEA-4 and TRA-1-81 surface markers represent >95% of the total population.



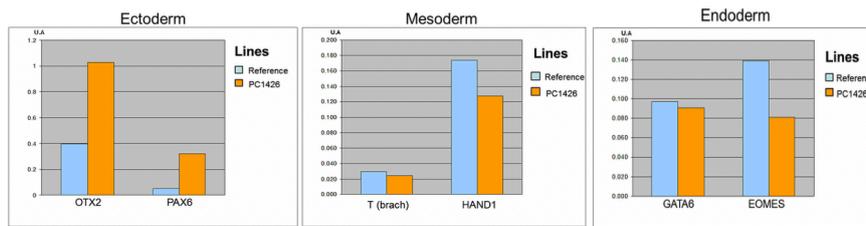
Immunohistochemistry for the key marker genes OCT4, NANOG and SOX2

Green : specific marker

Blue : nucleus identification with Hoechst 33342.

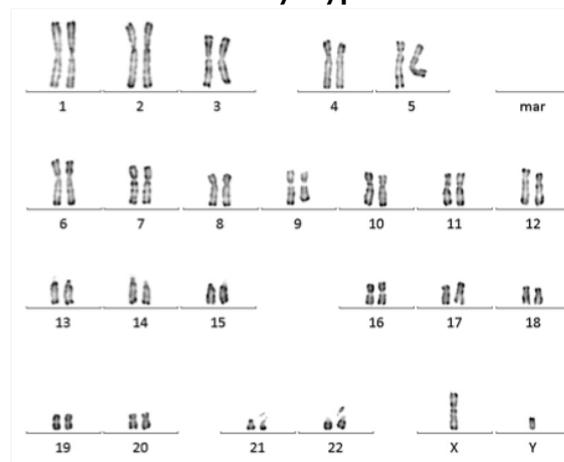


Differentiation potential



Following spontaneous formation of embryoid bodies, the presence of derivatives of the 3 germ layers is analyzed by quantitative Real-Time PCR.

Karyotype



Normal 46 X,X karyotype obtained by R-banding.

FOR RESEARCH USE ONLY

Not intended for human or animal diagnostic, therapeutic or clinical applications.



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 purchased Product(s) from PHENOCELL or its authorized distributor.
4. Product: The iPS cells (iPSCs) which PHENOCELL sells or transfers and are claimed in the patents and patents applications mentioned below.
5. Pluripotent Cells: iPSCs provided by PHENOCELL.
6. Progeny: cells derived by User from the Pluripotent Cells which retain the ability to self-replicate themselves, retain ability to differentiate into cell types from all three germ layers and remain in an undifferentiated state whether or not said cells are genetically modified and further including cell lines cloned from such cells so long as the cells retain the ability to self-replicate, retain ability to differentiate into cell types from all three germ layers and remain in an undifferentiated state.
7. Modification: cells which are created by User or created through the use of the Pluripotent Cells or Progeny, but which (i) do not differentiate into cell types from all three germ layers and (ii) are in a partially or terminally differentiated state.
8. Materials: Pluripotent Cells, Progeny and Modification.
9. Commercial Use: means any activity by a User consisting of at least one of following activities, provided, however, in case that User is a not-for-profit organization that is not established or affiliated with a for-profit organization or its research foundation, internal research use for non-commercial purposes by such non-for-profit organization is not Commercial Use:
 - I. Use of the Pluripotent Cells or Progeny for manufacture of related products (such as medium for the culture of Pluripotent Cells) distributed and/or sold to a third party including but not limited to culture medium and equipment,
 - II. Use of the Pluripotent Cells, Progeny or Modifications to provide a service, information or data to a third party for Financial Gain,
 - III. Use of the Pluripotent Cells, Progeny or Modifications for screening small molecular compounds, antibodies, proteins, peptides, and large-molecular compounds as potentially marketable compounds, provided, however, that (1) use of the Pluripotent Cells, Progeny or Modifications for target discovery, target validation or assay development is not considered Commercial Use, and (2) use of the Pluripotent Cells, Progeny or Modifications for screening by a not-for-profit organization solely for its internal research use for non-commercial purposes is



not considered as Commercial Use,

IV. Sale, lease, distribution or transfer of Pluripotent Cells, Progeny or Modifications to third parties for Financial Gain, provided, however, that transfer of Pluripotent Cells, Progeny or Modifications by a not-for-profit organization to other not-for-profit organization solely for its internal research purposes is not considered Commercial Use, or

V. Sale, lease, distribution or transfer of Pluripotent Cells, Progeny to for-profit organizations not for Financial Gain. For clarity, transfer of Pluripotent Cells or Progeny by a not-for-profit organization to a for-profit organization not for Financial Gain requires the receiving for-profit organization to take license from AJ.

For the purpose of this Section 1.5, "Financial Gain" means any financial benefit or gain earned by a User which consideration or revenue of a transaction exceeds its actual cost.

II. USER RESTRICTIONS

1. The Product and its use are the subjects to one or more of US Patents Nos. 8048999; 8058065; 8129187 and 8278104; and corresponding foreign patents and/or other pending US Patents and corresponding foreign patent applications which iPS-AJ have been granted the license rights with sub-licensable right.
2. The purchase of the Product conveys to User the limited, non-exclusive and non-transferable right (without the right to sell, repackage, or further sub-license) under the patents set out in Section 1 above to use the purchased amount of the Product and the derivatives of the Product in internal research conducted by User (whether User is non-for-profit organization or for for-profit organization). 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 right are conveyed to User to use the Product for any other purpose.
3. User may use Materials for its internal research in its laboratories located in the country and area specified, provided however that Commercial Use of Materials by User shall be restricted and be required with appropriate license from iPS-AJ. For clarity, in case that User is a non-for-profit organization, including academia, governmental body and other non-for-profit organization, internal research use of Materials by User for academic, educational and the other non-commercial purpose and transfer of Materials between non-for-profit organizations for non-commercial purposes is not restricted.
4. User agrees to use Materials in compliance with all applicable statutes and regulations, but not to use Materials 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.
5. For information on purchasing a license to the patent rights for purposes other than those



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