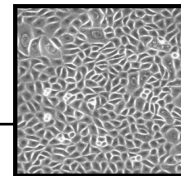


Clonetics™ keratinocyte cell systems

NHEK & D-HEK



Introduction

Clonetics™ keratinocyte systems contain normal human epidermal keratinocytes (NHEK) or diseased human epidermal keratinocytes from type II diabetic donors (D-HEK) and optimized medium for their growth. Each system can quickly generate NHEK or D-HEK cultures for the study of cellular differentiation and cellular antigen expression, cytoskeletal organization and drug efficacy.

Clonetics™ keratinocyte systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved NHEK and D-HEK are shipped as frozen primaries. Proliferating NHEK and D-HEK are shipped as secondary cultures.

Clonetics™ cells, medium and reagents are quality tested together and guaranteed to give optimum performance as a complete cell system.

Cell system components

- One keratinocyte product (cryopreserved or proliferating).
- Clonetics™ KGM-Gold™ BulletKit™ (00192060) contains one 500 ml bottle of keratinocyte basal medium-gold and the following growth supplements: BPE, 2 ml; hEGF, 0.5 ml; insulin, 0.5 ml; hydrocortisone, 0.5 ml; transferrin, 0.5 ml; epinephrine, 0.25 ml; GA-1000, 0.5 ml.

NOTE: Clonetics™ KGM-Gold™ without calcium and without phenol red and KGM™-CD BulletKit™ are also available. Please see ordering information below.

- One ReagentPack™ (CC-5034) Containing:

| | |
|--------------------------------|--------|
| Trypsin/EDTA | 100 ml |
| Trypsin neutralizing solution | 100 ml |
| HEPES buffered saline solution | 100 ml |

Performance

| | |
|---|--|
| Recommended seeding density for subculture | 3,500 cells/cm ² |
| Typical time from subculture to confluent monolayer | 5 - 9 days |
| Additional population doublings using Clonetics™ system | |
| NHEK-Neo (neonatal) | 20 |
| NHEK-Ad (adult) | 18 |
| D-HEK | Tested through 3 passages for information only |

Characterization of cells

NHEK and D-HEK are characterized by morphological observation throughout serial passages.

Quality control

HIV-1, hepatitis B and hepatitis C are not detected for all donors and/or cell lots. All cells are performance assayed and test negative for mycoplasma, bacteria, yeast and fungi. Cell viability, morphology and proliferative capacity are measured after recovery from cryopreservation. Clonetics™ media are formulated for optimal growth of specific types of normal human cells. A Certificate of Analysis (COA) for each lot of cryopreserved cells is shipped with each order. COAs for all other products are available upon request.

Ordering Information

Cryopreserved cells ≥ 500,000 cells

| | |
|----------|---|
| 00192907 | NHEK-neo in KGM-Gold™ |
| 00192906 | NHEK-neo pooled in KGM-Gold™ |
| 00192627 | NHEK adult in KGM-Gold™ |
| CC-2926 | D-HEK adult diabetic type II in KGM-Gold™ |

Proliferating formats and cells cryopreserved in other media are also available. Contact Scientific Support or refer to the Lonza website for details.

Medium & reagents

| | | |
|----------|---|--------|
| 00192060 | KGM-Gold™ BulletKit™, KBM-Gold™ plus SingleQuots™ of growth supplements | 500 ml |
| 00192151 | KBM-Gold™, keratinocyte basal medium-gold | 500 ml |
| 00192152 | KGM-Gold™ SingleQuots™, formulates KBM-Gold™ to KGM-Gold™ | |
| 00195769 | KGM-Gold™ w/o Ca ⁺⁺ , phenol red free BulletKit™, KBM-Gold™ w/o Ca ⁺⁺ , phenol red free plus SingleQuots™ of growth supplements | 500 ml |
| 00195130 | KBM-Gold™ w/o Ca ⁺⁺ , phenol red free keratinocyte basal medium- gold w/o calcium | 500 ml |
| CC-4455 | KGM™-CD BulletKit™, KBM™-CD plus SingleQuots™ of growth supplements | 500 ml |
| CC-3255 | KBM™-CD, keratinocyte basal medium-chemically defined | 500 ml |
| CC-4456 | KGM™-CD SingleQuots™, formulates KBM™-CD to KGM™-CD | |
| CC-3202 | Calcium chloride 300 mM | 2.0 ml |
| CC-5034 | ReagentPack™ | |
| | Trypsin/EDTA solution | 100 ml |
| | Trypsin neutralizing solution | 100 ml |
| | HEPES buffered saline solution | 100 ml |

When placing an order or for technical service, please refer to the product numbers and

descriptions listed above. For a complete listing of all Clonetics™ products, refer to the Lonza website or the current Lonza catalog. To obtain a catalog, additional information or technical service you may contact Lonza by web, e-mail, telephone, fax or mail.

Product Warranty

CULTURES HAVE A FINITE LIFESPAN *IN VITRO*. Lonza guarantees the performance of its cells only if Clonetics™ media and reagents are used exclusively, and the recommend protocols are followed. The performance of cells is not guaranteed if any modifications are made to the complete cell system. Cryopreserved NHEK and D-HEK are assured to be viable and functional when thawed and maintained properly.

THESE PRODUCTS ARE FOR RESEARCH USE ONLY. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* procedures.

WARNING: CLONETICS™ AND POIETICS™ PRODUCTS CONTAIN HUMAN SOURCE MATERIAL, TREAT AS POTENTIALLY INFECTIOUS. Each donor is tested and found non-reactive by an FDA approved method for the presence of HIV-1, hepatitis B virus and hepatitis C virus. Where donor testing is not possible, cell products are tested for the presence of viral nucleic acid from HIV, hepatitis B virus, and hepatitis C virus. Testing can not offer complete assurance that HIV-1, hepatitis B virus, and hepatitis C virus are absent. All human sourced products should be handled at the biological safety level 2 to minimize exposure of potentially infectious products, as recommended in the CDC-NIH manual, [Biosafety in Microbiological and Biomedical Laboratories](#), 5th edition. If you require further information, please contact your site safety officer or Scientific Support.