



## Clonetics™ renal epithelial cell systems

HRE, HRCE, RPTEC, & D-RPTEC

### Introduction

Clonetics™ renal epithelial cell systems contain normal human renal cortical epithelial cells (HRCE), normal human renal proximal tubule epithelial cells (RPTEC), diseased human renal proximal tubule epithelial cells from type II diabetic donors (D-RPTEC), or human renal epithelial cells (HRE). Each System can quickly generate HRCE, HRE, RPTEC, or D-RPTEC cultures for experimental applications in cancer research, toxicology, physiology, cellular function and differentiation. Clonetics™ renal epithelial cell systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved HRCE, RPTEC, and D-RPTEC are shipped in first or second passage. Proliferating HRCE, RPTEC, and D-RPTEC are shipped in second or third passage. Cryopreserved HRE are shipped in first passage, and proliferating HRE are shipped in second passage.

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

### Cell system components

- One renal epithelial cell product (cryopreserved or proliferating).
- Clonetics™ REGM™ BulletKit™ (CC-3190) contains one 500 ml bottle of renal epithelial cell basal medium and the following growth supplements: hEGF, 0.5 ml; hydrocortisone, 0.5 ml; epinephrine, 0.5 ml; insulin, 0.5 ml; triiodothyronine 0.5 ml; transferrin, 0.5 ml; GA-1000, 0.5 ml; FBS, 2.5 ml.
- One ReagentPack™ (CC-5034) containing:
 

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

### Characterization of cells

Routine characterization of RPTEC and D-RPTEC includes immunofluorescent staining. RPTEC and D-RPTEC stain positive for gamma-glutamyl transpeptidase ( $\gamma$ -GTP). HRCE are stained for cytokeratin. Clonetics™ RPTEC are known to stain positive for alkaline phosphatase and to form tubules on Matrigel®. Under specific culture conditions these cells may polarize and form brush borders with microvilli. HRE stain positive for pan cytokeratin. HRE are stained for vimentin for informational purposes.

### Performance

Recommended seeding density	2,500 cells/cm <sup>2</sup>
Typical time from subculture to confluent monolayer	5 - 9 days
HRE, HRCE, & RPTEC additional population doublings guaranteed using Clonetics™ system	15
D-RPTEC additional population doublings guaranteed using Clonetics™ system	Tested through 3 passages for information only

### Quality control

All cells are performance assayed and test negative for HIV-1, mycoplasma, hepatitis-B, hepatitis-C, 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. Certificates of analysis (COA) for each cell strain are shipped with each order. COA for all other products are available upon request.

## Ordering information

### Cryopreserved Cells

CC-2553	RPTEC	≥500,000 cells
CC-2925	D-RPTEC diabetic type II	≥500,000 cells
CC-2554	HRCE	≥500,000 cells
CC-2556	HRE	≥500,000 cells

### Proliferating cells – Flasks and multiwell plates

#### RPTEC

CC-2653	T-25 flask
CC-0267	T-75 flask
CC-0168	96-well plate

#### HRCE

CC-2654	T-25 flask
CC-0270	T-75 flask
CC-0172	96-well plate

#### HRE

CC-2556T25	T-25 flask
CC-2556T75	T-75 flask
CC-2556W96	96-well plate

Other proliferating formats are available. Contact Scientific Support or refer to the Lonza website for details.

CC-3190	REGM™, BulletKit™, REBM™ plus SingleQuots™ of growth supplements	500 ml
CC-3191	REBM™, renal epithelial cell basal medium	500 ml
CC-4127	REGM™ SingleQuots™, formulates REBM™ to REGM™	
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 renal epithelial cells 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](#), 5<sup>th</sup> edition. If you require further information, please contact your site safety officer or Scientific Support.