

www.lonza.com
U.S. Scientific Support: 800-521-0390
scientific.support@lonza.com
EU/ROW Scientific Support: +49-221-99199-400
scientific.support.eu@lonza.com
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# Clonetics™ pulmonary artery endothelial cell systems

**HPAEC & D-HPAEC** 



#### Introduction

Clonetics™ pulmonary artery endothelial cell systems contain normal human pulmonary artery endothelial cells (HPAEC) or diseased human pulmonary artery endothelial cells from diabetic donors (D-HPAEC) and optimized media for their growth. Each system can quickly generate HPAEC or D-HPAEC cultures for experimental applications in cardiovascular pharmaceutical development and vascular pathology, including atherosclerosis. Clonetics™ human pulmonary artery endothelial cell systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved HPAEC and D-HPAEC are shipped in third passage. Proliferating HPAEC and D-HPAEC are shipped in fourth passage.

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

### **Cell System Components**

- One pulmonary artery endothelial cell product (cryopreserved or proliferating).
- Clonetics™ EGM™-2 BulletKit™ (CC-3162) contains one 500 ml bottle of endothelial cell basal medium-2 and the following growth supplements: hydrocortisone, 0.2 ml; hFGF-B, 2 ml; VEGF, 0.5 ml; R³-IGF-1, 0.5 ml; ascorbic acid, 0.5 ml; heparin, 0.5 ml; FBS, 10 ml; hEGF, 0.5 ml; GA-1000, 0.5 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 HPAEC and D-HPAEC includes immunofluorescent staining. Cells stain positive for acetylated LDL and von Willebrand (factor VIII) antigen and negative for smooth muscle  $\alpha$ -actin.

### **Performance**

Recommended seeding density for subculture	2,500 - 5,000 cells/cm <sup>2</sup>
Typical time from subculture to confluent monolayer	5 - 9 days
HPAEC additional population doublings guaranteed using Clonetics™ system	15
D-HPAEC 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.

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# **Ordering Information**

# **Cryopreserved Cells**

CC-2530	HPAEC	≥500,000 cells
CC-2923	D-HPAEC diabetic type I	≥500,000 cells

diabetic type i

CC-2924 D-HPAEC ≥500,000 cells

diabetic type II

## Proliferating cells - Flasks and multiwell plates

CC-2630	T-25 flask
CC-0219	T-75 flask
CC-0128	96-well plate

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

CC-3129	EBM™-PRF, endothelial basal medium w/o phenol red	500 ml
CC-3162	EGM <sup>™</sup> -2 BulletKit <sup>™</sup> , EBM <sup>™</sup> -2 plus SingleQuots <sup>™</sup> of growth supplements	500 ml
CC-3156	EBM™-2, endothelial cell Basal medium-2	500 ml
CC-4176	EGM <sup>™</sup> -2 SingleQuots <sup>™</sup> , formulates EBM <sup>™</sup> -2 to EGM <sup>™</sup> -2	
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 HPAEC and D-HPAEC 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-I, 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.