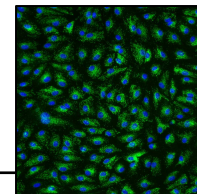


## Clonetics™ Lung Lymphatic Microvascular Endothelial Cell Systems HMVEC-LLy



### Introduction

Clonetics™ Lung Lymphatic Microvascular Endothelial Cell Systems contain lung-derived Normal Human Lymphatic Microvascular Endothelial Cells (HMVEC-LLy) and media optimized for their growth. Each System can quickly generate HMVEC-LLy cultures for experimental applications in circulatory physiology, wound healing, lymphangiogenesis, immunology and drug development. Clonetics™ Lung Lymphatic Microvascular Endothelial Cell Systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved HMVEC-LLy are shipped in third passage. Proliferating HMVEC-LLy are shipped in fourth or fifth passage.

Clonetics™ Cells, Medium and Reagents are quality tested together and guaranteed to give optimum performance as a complete Cell System.

### Cell System Components (Need to be purchased separately)

- One Lung-Derived Lymphatic Microvascular Endothelial Cell Product (Cryopreserved or Proliferating)
- One Endothelial Cell Medium BulletKit™ - 500 ml  
Clonetics™ EGM™-2 MV BulletKit™ (CC-3202) contains one 500 ml bottle of Endothelial Cell Basal Medium-2 and the following Growth Supplements: hEGF, 0.5 ml; Hydrocortisone, 0.2 ml; GA-1000, 0.5 ml; FBS, 25 ml; VEGF, 0.5 ml; hFGF-B, 2.0 ml; R<sup>3</sup>-IGF-1, 0.5 ml; Ascorbic Acid, 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 HMVEC-LLy includes immunofluorescent staining. Cells stain positive for acetylated LDL and von Willebrand's (Factor VIII) antigen and stain negative for smooth muscle  $\alpha$ -actin. Lung Lymphatic Microvascular Endothelial Cells are at least 95% double positive for CD31 (PECAM-1) and Podoplanin by flow cytometry.

### Performance

Recommended seeding density for subculture	5,000 cells/cm <sup>2</sup>
Typical time from subculture to confluent monolayer	4 to 7 days
Additional population doublings guaranteed using Clonetics™ System	12

### 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 is 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-2814 HMVEC-LLy  $\geq 500,000$  cells

### Proliferating Cells – Flasks and Multiwell Plates

#### HMVEC-LLy Ad

CC-2814T25 T-25 Flask

CC-2814T75 T-75 Flask

CC-2814W96 96-well Plate

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

CC-3202	EGM™-2 MV BulletKit™, EBM™-2 plus SingleQuots™ of Growth Supplements	500 ml
CC-3156	EBM™-2, Endothelial Cell Basal Medium-2	500 ml
CC-4147	EGM™-2 MV SingleQuots™, Formulates EBM™-2 to EGM™-2 MV	
CC-5034	ReagentPack™	
	Trypsin Neutralizing Solution	100 ml
	Trypsin/EDTA Solution	100 ml
	HEPES Buffered Saline	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 HMVEC-LLy 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.