Clonetics™ Lung Blood Microvascular Endothelial Cell Systems
HMVEC-LBI

Introduction
Clonetics™ Lung Blood Microvascular Endothelial Cell Systems contain lung-derived Normal Human Microvascular Blood Vessel Endothelial Cells (HMVEC-LBI) and media optimized for their growth. Each System can quickly generate HMVEC-LBI cultures for experimental applications in circulatory physiology, wound healing, angiogenesis, immunology and drug development. Clonetics™ Lung Blood Microvascular Endothelial Cell Systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved HMVEC-LBI are shipped in third passage. Proliferating HMVEC-LBI 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 Blood 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; R3-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-LBI includes immunofluorescent staining. Cells stain positive for acetylated LDL and von Willebrand's (Factor VIII) antigen and stain negative for smooth muscle α-actin. Lung Blood Microvascular Endothelial Cell purity is analyzed by flow cytometry using CD31 (PECAM-1)/Podoplanin double staining. Cells are at least 90% CD31\textsuperscript{pos}/Podoplanin\textsuperscript{neg} the 2\textsuperscript{nd} or 3\textsuperscript{rd} passage out of cryopreservation.

Performance
Recommended seeding density for subculture 5,000 cells/cm\textsuperscript{2}
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-2815  HMVEC-LBI  ≥500,000 cells

Proliferating Cells – Flasks and Multiwell Plates

HMVEC-LBI

CC-2815T25  T-25 Flask
CC-2815T75  T-75 Flask
CC-2815W96  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™-2MV
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-LBI 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, 5th Edition. If you require further information, please contact your site Safety Officer or Scientific Support.

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