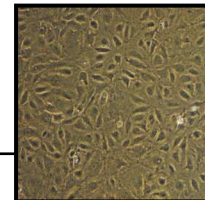


Clonetics™ dermal microvascular endothelial cell systems

HMVEC-d & D-HMVEC-d



Introduction

Clonetics™ dermal microvascular endothelial cell systems contain dermal-derived normal human microvascular endothelial cells (HMVEC-d) or diseased human microvascular endothelial cells from diabetic donors (D-HMVEC-d) and optimized medium for their growth. Each system can quickly generate HMVEC-d or D-HMVEC-d cultures for experimental applications in oncology, wound healing, angiogenesis and drug development. Clonetics™ dermal microvascular endothelial cell systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved HMVEC-d and D-HMVEC-d are shipped in third passage. Proliferating HMVEC-d and D-HMVEC-d 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

- One dermal derived microvascular endothelial cell product (cryopreserved or proliferating).
- 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-d and D-HMVEC-d includes immunofluorescent staining. Cells stain positive for acetylated LDL and von Willebrand's (factor VIII) antigen and stain negative for smooth muscle α -actin.

Performance

Recommended seeding density for subculture	5,000 cells/cm ²
Typical time from subculture to confluent monolayer	5 - 9 days
HMVEC-d additional population doublings guaranteed using Clonetics™ System	15
D-HMVEC-d additional population doublings guaranteed using Clonetics™ system	Tested through 3 passages for information only

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 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 Certificates of analysis (COA) for each lot of cryopreserved cells is shipped with each order. COA for all other products are available upon request.

Ordering information

Cryopreserved cells

CC-2505	HMVEC-d-Neo, neonatal	≥ 500,000 cells
CC-2516	HMVEC-d-Neo, neonatal, pooled	≥ 500,000 cells
CC-2543	HMVEC-d-Ad, adult	≥ 500,000 cells
CC-2929	D-HMVEC-d adult diabetic type I	≥ 500,000 cells
CC-2930	D-HMVEC-d adult diabetic type II	≥ 500,000 cells

Proliferating cells – Flasks and multiwell plates

HMVEC-d-Neo, neonatal

CC-2605	T-25 flask
CC-0246	T-75 flask
CC-0112	96-well plate

HMVEC-d-Neo, neonatal, pooled

CC-2616	T-25 flask
CC-0288	T-75 flask
CC-2516W96	96-well plate

HMVEC-d-Ad, adult

CC-2643	T-25 flask
CC-0207	T-75 flask
CC-2543W96	96-well plate

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

CC-3202	EGM™-2MV BulletKit™, EBM™-2 plus SingleQuots™ of growth supplements	500 ml
CC-3156	EBM™-2, endothelial cell basal medium-2	500 ml
CC-4147	EGM™-2MV 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-d and D-HMVEC-d 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.