



Clonetics™ Lung Fibroblast Cell Systems

NHLF & DHLF

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I. Introduction

Clonetics™ Lung Fibroblast Cell Systems contain Normal Human Lung Fibroblasts (NHLF) or Diseased Human Lung Fibroblasts (DHLF) and optimized medium for their growth. Each System can quickly generate NHLF or DHLF cultures for the study of stimulation and response in pulmonary inflammation and fibrosis in normal or diseased cells. Clonetics™ Lung Fibroblast Cell Systems are convenient and easy to use, allowing the researcher to focus on results. There are four types of DHLF available: cells isolated from donors with cystic fibrosis, asthma, COPD, and idiopathic pulmonary fibrosis (IPF). Cryopreserved NHLF and DHLF are shipped second passage. Proliferating NHLF and DHLF are shipped as third passage cultures.

Clonetics™ Cells, Medium and Reagents are quality tested together and guaranteed to give optimum performance as a complete “cell system”.

II. Cell System Components (need to be purchased separately)

- One Lung Fibroblast Cell Product – Normal or Diseased (Cryopreserved or Proliferating)

- One Fibroblast Cell Medium BulletKit™ - 500 ml
- Clonetics™ FGM™ -2 BulletKit™ (CC-3132) contains one 500 ml bottle of Fibroblast Cell Basal Medium and the following growth supplements: hFGF-B, 0.5 ml; Insulin, 0.5 ml; FBS, 10 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

III. Characterization of Cells

Routine characterization of NHLF and DHLF includes morphological observation throughout serial passages. Cells stain negative for smooth muscle α -actin, cytokeratin 18, cytokeratin 19 and von Willebrand (Factor VIII).

IV. Performance

Recommended seeding density for subculture	2,500 cells/cm ²
Typical time from subculture to confluent monolayer	6 - 9 days
NHLF additional population doublings guaranteed using Clonetics™ System	15
DHLF additional population doublings guaranteed using Clonetics™ System	Tested through 3 passages for information only

V. Quality Control

All cells are performance assayed and tested for HIV-1, Hepatitis-B, Hepatitis-C, 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. Certificates of Analysis (COA) for each cell strain are shipped with each order. COAs for all other products are available upon request.

VI. Ordering Information

Cryopreserved Cells

Cat. No.	Product	Size
CC-2512	NHLF	≥ 500,000 cells
00194843	DHLF-CF (cystic fibrosis)	≥ 500,000 cells
00194912	DHLF-AS (asthma)	≥ 500,000 cells
0195277	DHLF-COPD	≥ 500,000 cells
CC-7231	DHLF-iPF	≥ 500,000 cells

Proliferating formats are available. Refer to the Lonza website or contact Scientific Support for details.

Cat. No.	Product	Size
CC-3132	FGM -2™ BulletKit, FBM™ Plus SingleQuots™ of Growth Supplements	500 ml
CC-3131	FBM™, Fibroblast Basal Medium	500 ml
CC-4126	FGM -2 SingleQuots™ Formulates FBM™ to FGM™ -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 Scientific Support, 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 Scientific Support you may contact Lonza by web, e-mail, telephone, fax or mail.

VII. 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 NHLF and DHLF 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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