

Cardiac Fibroblast Cell Systems

NHCF-A and NHCF-V

Introduction

Cardiac Fibroblast Cell Systems are available as Normal Human Atrial Fibroblasts (NHCF-A) and Normal Human Ventricular Fibroblasts (NHCF-V) with optimized media for their growth. Each system can quickly generate NHCF cultures for the study of disorders of human fibroblasts such as cardiac fibrosis. Cardiac Fibroblast Cell Systems are convenient and easy to use, allowing the researcher to focus on results. Cryopreserved NHCF are shipped in second passage. Lonza's 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 cardiac fibroblast cell product—NHCF-A, NHCF-V (cryopreserved)
- One Fibroblast Medium BulletKit™ - 500 mL FGM-3™ BulletKit™ (CC-4526) contains one 500 mL bottle of fibroblast basal medium and the following growth supplements: hFGF-B, 0.5 mL; Insulin, 0.5 mL; FBS, 50 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 NHCF includes positive immunofluorescent staining for collagen I. Cardiac fibroblasts are negative for von Willebrand factor VIII related antigen.

Performance

Recommended seeding density for subculture	3,500 cells/cm ²
Typical time from subculture to confluent monolayer	6 - 9 days
Additional population doublings guaranteed using Lonza's system	5

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. Lonza's media are formulated for optimal growth of specific types of normal human cells. A Certificates of Analysis (COA) for each lot is shipped with each order. COA's for all other products are available upon request.

Ordering information

Cryopreserved cells

Cat no.	Description	Size
CC-2903	NHCF-A	≥ 500,000 cells
CC-2904	NHCF-V	≥ 500,000 cells

Proliferating cells – flasks and multiwell plates

CC-2903T25	NHCF-A T-25	T-25 Flask
CC-2904T25	NHCF-V T-25	T-25 Flask
CC-2903W96	NHCF-A 96-well	96-well Plate
CC-2904W96	NHCF-V 96-well	96-well Plate

Other proliferating formats are available. Refer to the Lonza website for details.

Media and reagents

Cat no.	Description	Size
CC-4526	FGM-3™ BulletKit™, FBM™ plus SingleQuots™ Kit	Kit
CC-3131	FBM™, Fibroblast Basal Medium	500 mL
CC-4525	FGM-3™ SingleQuots™ Kit, Formulates FBM™ to FGM-3™	Kit
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 Lonza's 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 Lonza 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 NHCF 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: LONZA CELL 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](#), 5thed. If you require further information, please contact your site Safety Officer or Scientific Support.