

iCell® Cardiomyocytes Serum-Free Medium

Description

iCell® Cardiomyocytes Serum-Free Medium (iCSFM) is a **Serum-free** and **Glucose-free** medium formulation optimized for iCell Cardiomyocytes² assays for up to 14 days. iCell Cardiomyocytes Serum-Free Medium can be used for both acute and chronic repeat dosing experiments.

Handling and Storage

Upon receipt, immediately transfer the bottle to the freezer at -20°C.

iCell Cardiomyocytes Serum-Free Medium can be stored at -20°C for up to 1-year. Store medium at 4°C for up to 2 weeks.

Preparing iCell Cardiomyocytes Serum-Free Medium

1. Thaw iCell Cardiomyocytes Serum-Free Medium overnight at 4°C.
2. Store at 4°C for up to 2 weeks.

Using iCell Cardiomyocytes Serum-Free Medium

iCell Cardiomyocytes Serum-Free Medium can be used for both short-term (≥4 hours) and long-term (≤7 days) assays. This Quick Guide is designed for use with iCell Cardiomyocytes², 01434 or 11713; however the medium can also be used with the original iCell Cardiomyocytes product. Contact Technical Support for guidance for use with iCell Cardiomyocytes.

1. Culture the cells as described in their User Guides until they are ready to be assayed.
2. Equilibrate iCell Cardiomyocytes Serum-Free Medium to room temperature.
3. Perform a 100% medium change using iCell Cardiomyocytes Serum-Free Medium. See **Table 1** below for the recommended medium volume per well for various cell culture vessels or assay microplates.

Table 1: Summary of Useful Volumes and Measures

All volumes and measures are per well, if applicable.

Vessel or Plate	Surface Area (cm ²)	Volume (mL)
6-well	9.5	3
12-well	3.8	1.2
24-well	1.9	0.6
96-well	0.32	0.2
384-well	0.11	0.04
48-well MEA	0.22	0.3
E-Plate Cardio 96	0.196	0.1

4. Culture the cells at 37°C, 5% CO₂ for at least 4 hours prior to assaying.

Maintaining the Cells in iCell Cardiomyocytes Serum-Free Medium

1. Replace the medium with fresh iCell Cardiomyocytes Serum-Free Medium every 2-3 days. See **Table 2** for example workflow schedule.
2. The recommended waiting period before assaying cells is at least 4 hours after media change.

Note: *If the assay is to be performed on a Monday, you must change the media on Monday morning and then wait 4 hours before assaying*

3. For all assay formats, cells can be cultured for a maximum of 7 days in iCell Cardiomyocytes Serum-Free Medium at 37°C, 5% CO₂.

Table 2: Example feeding schedules, including a weekend-free workflow, for culturing iCell Cardiomyocytes² with iCell Cardiomyocytes Serum-Free Medium.

DIV	Start Day Options					
	Mon	Tue	Wed	Thu		
DIV 0	Thaw iCell Cardiomyocytes ² and plate in iCell Cardiomyocytes Plating Medium (iCPM)				Plate in iCPM	
DIV 1	Tue	Wed	Thu	Fri	Change iCPM to iCMM	
DIV 2	Wed XX	Thu XX	Fri iCMM	Sat XX	Culture in iCMM	
DIV 3	Thu iCMM	Fri iCMM	Sat XX	Sun XX		
DIV 4	Fri iCMM	Sat XX	Sun XX	Mon iCMM		
DIV 5	Sat XX	Sun XX	Mon iCMM	Tue XX		
DIV 6	Sun XX	Mon iCMM	Tue XX	Wed iCMM		
DIV 7	Mon	Tue	Wed	Thu		Assay 4 hours after media change
change iCMM to iCSFM						
DIV 8	Tue XX	Wed XX	Thu XX	Fri iCSFM		Assay any time or 4 hours after media change*
DIV 9	Wed iCSFM	Thu iCSFM	Fri iCSFM	Sat XX		
DIV 10	Thu XX	Fri iCSFM	Sat XX	Sun XX		
DIV 11	Fri iCSFM	Sat XX	Sun XX	Mon iCSFM		
DIV 12	Sat XX	Sun XX	Mon iCSFM	Tue XX		
DIV 13	Sun XX	Mon iCSFM	Tue XX	Wed iCSFM		
DIV 14	Mon iCSFM	Tue iCSFM	Wed iCSFM	Thu iCSFM		

*see note under Step 2 of *Maintaining the Cells* section

Contacting Technical Support


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Revision History

Document ID: X1043

Version 1.0 January 2021

Version 2.0 September 2021