YBLiCardio

Transform your Cardiac research with our Cipa validated hiPSC Cardiomyocytes

YBLiCardio

- Seeding efficiency > 80% and purity > 90%
- >90% viability post-cryopreservation
- Scalability for research and industrial applications
- Compatibility with bioprinting platforms
- Comprehensive platform for drug response assessment



YBLiCardio

Transforming cardiac research with **hiPSC** derived cardiomyocytes

High-quality products and services for accelerated drug discovery

- Viral integration-free clones for cellular assays and screening.
- Differentiation into multiple cell lineages and in vitro assays using **hiPSC** derivatives or primary cells.
- Disease modeling by reprogramming patient **PBMCs** into desired cell lineages

Advancing cardiac regeneration with high-fidelity patches





YBLiCardio for bioprinting applications

- Excellent bioink extrusion properties for 3D bioprinting
- Achieves steady-state geometry while retaining its printed structure
- High viability supports the formation of an aligned, contractile syncytium.
- Displays normal calcium handling and conduction velocity, akin to adult cardiac tissues.

High fidelity cardiac tissues displaying normal calcium handling that is similar to adult cardiac tissues



3D Bioprinting



Day 14



Native Heart Tissue



Calcium Transient (time series)



YBLiCardio Tissue



Calcium Wave Propagation

YBLiCardio

A Cipa validated model for drug safety screening

High Purity & Reliability



Figure 2: YBLiCardio marker expression analysis using Flow Cytometry

Acute & Chronic drug response with YBLiCardio



Excellent response to Gold standard tool compounds in acute & chronic toxicity assessment

Comprehensive in vitro Proarrhythmia (CiPA) assessment of tool compounds on **YBLiCardio**



% Prolongation of QT intervals

Compound	HESI Prediction	YBLiCardio	Compound	HESI Prediction	YBLiCardio
Verapamil	Low	79%	Pimozide	Intermediate	130%
Cisapride	Intermediate	86%	Ranolazine	Low	133%
Diltiazem	Low	93%	Chlorpromazine	Intermediate	133%
Nitrendipine	Low	97%	Astemizole	Intermediate	139%
Clozapine	Intermediate	106%	Dofetilide	High	165%
Loratadine	Low	106%	Ibutilide	High	166%
Clarithromycin	Intermediate	107%	Droperidol	Intermediate	173%
Metoprolol	Low	109%	Vandetanib	High	176%
Risperidone	Intermediate	111%	Azimilide	High	176%
Tamoxifen	Low	113%	Domperidone	Intermediate	182%
Nifedipine	Low	113%	Disopyramide	High	217%
Terfenadine	Intermediate	116%	Quinidine	High	249%
Ondansetron	Intermediate	122%	Sotalol	High	275%
Mexiletine	Low	124%	Bepridil	High	344%

High Risk - 165% - 344%Intermediate Risk - 113% - 139%Low Risk 79% - 113%Figure 3: YBLiCardio shows response in full accordance to the HESI Risk Prediction.

YBLiCardio are compatible with various platforms, enabling the study of diverse cellular functions and assay endpoints:

- Disease modeling
- Phenotypic screening
- Proarrhythmia detection

- Acute & Chronic toxicity assessment
- Target identification
- 3D Bioprinting

YBLiCardio produced high-fidelity cardiac tissues with excellent cardiomyocyte viability, forming aligned, contractile syncytia, and demonstrated normal calcium handling and conduction velocity, closely resembling adult cardiac tissues.

— **Dr. Andrew Lee**, Head of Bioprinting at FluidForm, US.

YBLiCardio are highly robust hiPSC-CM cells showing excellent responses to gold-standard compounds, enabling straightforward application in drug discovery, safety, and toxicity studies, performing comparable to existing products.

— Dr. Matthias Gossmann, CEO innovitro GmbH

COME JOIN US AND DRIVE INNOVATION TO **MAKE A HEALTHIER WORLD!**





In collaboration with

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