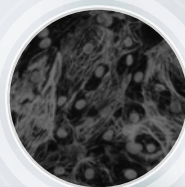
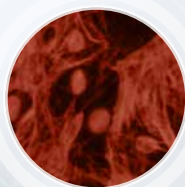
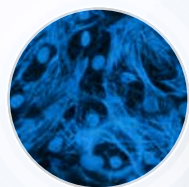


c-Troponin

Cellartis[®] hiPS-CM

Human cardiomyocytes derived from induced pluripotent stem cells as an effective tool for *in vitro* evaluation of cardiotoxicity



www.cellartis.com

Cellartis® hiPS-CM are spontaneously beating human cardiomyocytes derived from pluripotent stem cells prepared in single cell format for convenient use in down-stream applications. The cells express cardiac-specific markers and have functional similarities to adult human cardiomyocytes, providing excellent *in vitro* tools for studies of human cardiomyocyte function and for cardiac safety pharmacology assays.

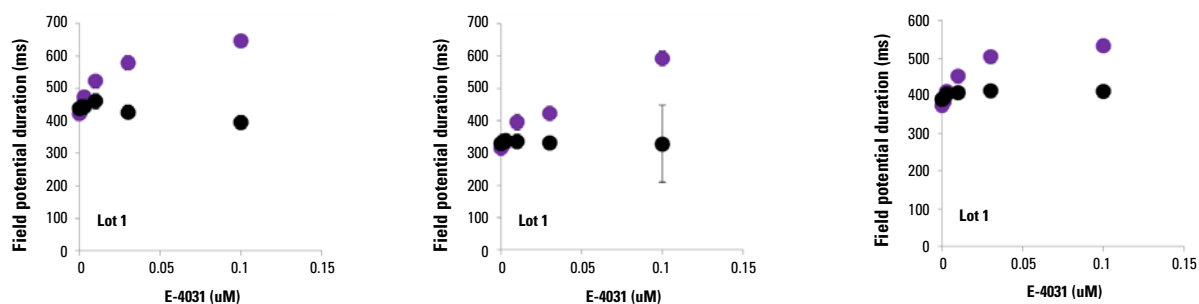


Figure 1: Low LOT-to-LOT variation in field potential duration response after administration of E-4031 in three batches of Cellartis® hiPS-CM. Recorded using the Maestro MEA system by Axion Biosystems (black: DMSO, purple=E-4031).

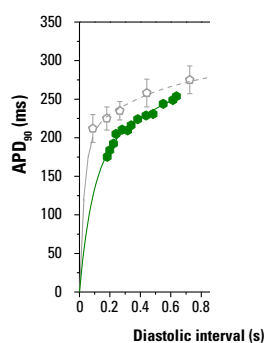


Figure 2: Action potential duration restitution curve (CellOPTIQ, Clyde Biosciences). The electrophysiological characteristics of Cellartis® hiPS-CM were very close to published data on adult human ventricular myocytes (HVM), showing physiological relevance in terms of APD90 and the stepness of APD restitution curve (green=Cellartis® hiPS-CM, open circle=HMV-Thomas O'Hara T. et al).

ADVANTAGES

- Electrophysiological profile highly resembling adult human primary cardiomyocytes
- Expected response to cardiac stimuli
- Genetically unmodified cell line. Derived without selection.
- Low LOT-to-LOT variation
- hiPS-cells episomally derived with Yamanaka TFs
- No selection

APPLICATIONS

- Safety pharmacology
- Cardiotoxicity testing
- Discovery of novel cardiac drug targets
- High Content Analysis

TYPICAL ASSAYS

- Micro Electrode Array (MEA)
- Voltage-clamp studies
- Transmembrane Action Potential (TAP)
- hERG channel inhibition
- Ion channel trafficking

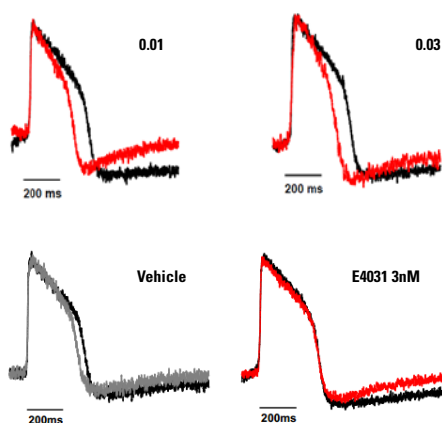


Figure 3: Effect of Nifedipine (calcium channel blocker) on action potential shape (CellOPTIQ, Clyde Biosciences) (black=baseline, red=Nifedipine).

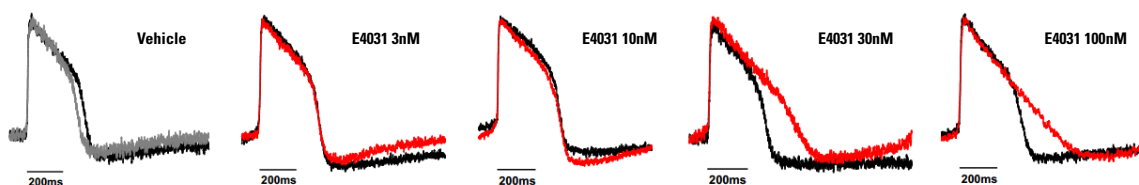


Figure 4: Effect of E-4031 (hERG blocker) on action potential shape (grey=Vehicle, black=baseline, red=E-4031).

PRODUCT	CATALOGUE #	SOURCE	FORMAT
Cellartis® hiPS-CM	CM-208-VIAL-KIT	hiPS cell line P11012	>3M viable cells, suitable for multiwell plate format

ORDERING INFORMATION