AnaBios
Early Human Insights

Adult Human Cardiomyocytes

USING MYOPRIME™ CARDIOMYOCYTES FOR DRUG SCREENING, BIOMARKER DISCOVERY

AnaBios is proud to offer MyoPRIME™, the first commercially available *live* human adult primary cardiomyocytes for cardiovascular preclinical drug discovery. We utilize a proprietary technology to minimize ischemic breakdown in human heart tissue during the recovery process and during reperfusion. This ensures superior quality and biological viability for use in cardiovascular functional assays, including CardioPRIME™. MyoPRIME™ cardiomyocytes are characterized by distinct rod-shaped morphology and well-defined sarcomeric striations. Our cardiomyocytes provide precise control and manipulation capabilities for various research applications, including cardiac physiology and disease modeling.

MyoPRIME™

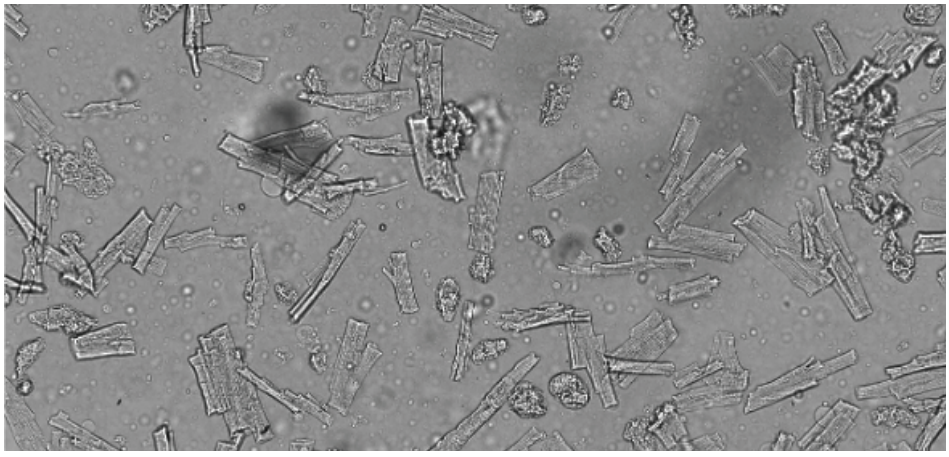


FIGURE 1 Phase Contrast Microscopy Images of Adult Human Primary Cardiomyocytes. Isolated MyoPRIME™ cardiomyocytes were air-shipped from AnaBios' laboratory in Philadelphia to San Diego–more than 2,600 miles. They were found to be Ca^{2+}-tolerant, retained rod-shaped morphology and exhibited cross striations.

GET THE ANABIOS ADVANTAGE:

EARLY HUMAN INSIGHTS

- **Proprietary technology.** AnaBios utilizes proprietary technology that minimizes the ischemic breakdown process, preserving RNA integrity and improving cell quality.
- **200,000 viable cells per vial.** Live cardiomyocytes are shipped in vials of approximately 200,000 cells each to laboratories around the world for cardiovascular research.
- **Quality control.** Cells are stored, handled and shipped under optimal conditions to prevent degradation.
- **"Fail fast."** Our cardiomyocytes arrive in your laboratory ready to use for experiments with minimal preparation required; no long-term culturing needed.
- **CRO or DIY.** Leverage authentic human biology via AnaBios' expert CRO services or direct access to high-quality human cardiomyocytes.

CHAYON
LABORATORIES, INC

FIGURE 2 Sarcomere Shortening. In the figure below, no signficant difference is observed in baseline sarcomere shortening (A, 8 control and 13 shipped cells) in responses to verapamil, a Ca^{2+} channel inhibitor (B, 6 control and 8 shipped cells), isoproterenol, an adrenoceptor agonist (C, 7 control and 6 shipped cells) and milrinone, a PDE3 inhibitor (D, 7 control and 10 shipped cells) between shipped and control cardiomyocytes.

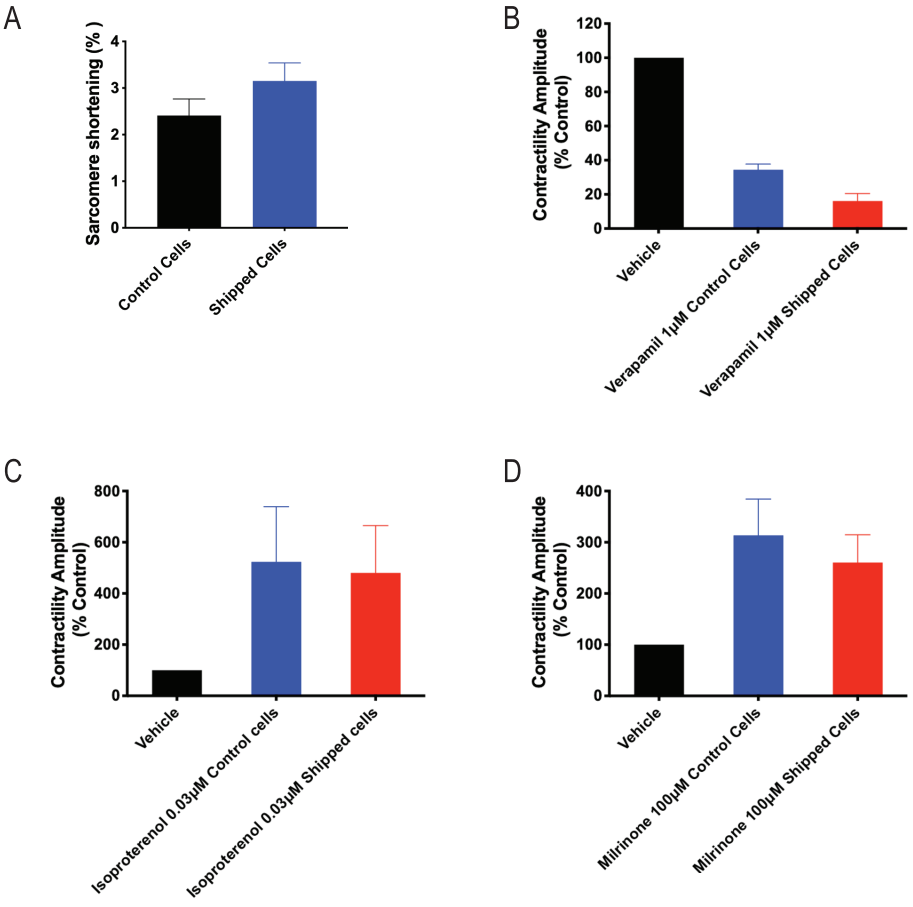
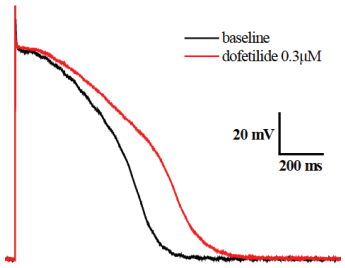
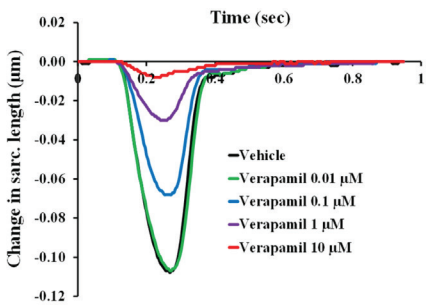


FIGURE 3 Action Potentials



The graph above shows action potentials recorded from MyoPRIME™ cardiomyocytes air-shipped to France. The pacing rate was 1 Hz in the presence of vehicle control and after exposure to dofetilide (black and red traces, respectively). Recording done by Physiostim (http://www.physiostim.com).

FIGURE 4 Sarcomere Shortening



The graph above depicts typical non-fitted averaged contractility transients recorded from an adult human primary ventricular myocyte in the presence of a vehicle control and after exposure to verapamil at 0.01, 0.1, 1, and 10µM (0.2-, 2-,22-, and 222-fold the fETPC, respectively) at a pacing frequency of 1Hz.

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SPECIFICATIONS

CELL	MyoPRIME™ (human adult primary cardiomyocytes)
FORMAT	• Ventricular cardiomyocytes • Live & in-suspension (approximately 200,000 cells/vial) • Shipped and stored at 4° Celsius
APPLICATIONS	• Functional & viability assays • Ion channel, action potential & contractility measurements • Pro-arrhythmia assessment • Acute & 24-hour assessment of drug effects • Target expression
SOURCE	• Healthy, consented donors • Contact us for specific clinical and demographic background requests
ANNOTATION	Extensive profile includes sex, age, race, cause of death, BMI, smoking and alcohol use, substance use, HLA typing, serology data, culture results and medical history.

MyoPRIME™

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