Applied StemCell, Inc.
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Datasheet

Cardiomyocyte Cellutions Maintenance Medium

Product Information

Catalog Number

ASM-6016

Description

Applied StemCell has developed the Cardiomyocyte Cellutions Maintenance Medium for the optimal maintenance of human differentiated cardiomyocytes. This medium formulation is designed to optimally maintain human differentiated cardiomyocytes at any developmental stage. Our Cardiomyocyte Cellutions Maintenance Medium has been tested and optimized using human cardiomyocytes. When used in conjunction with our human cardiomyocytes, this medium is guaranteed to optimally maintain them.
Cardiomyocyte Cellutions Maintenance Medium contains animal-derived products.

Quantity

500 mL

Shipping and Handling

Cardiomyocyte Cellutions Maintenance Medium is shipped at 4°C. Upon arrival, place into 4°C. Medium is light-sensitive, and therefore, caution must be taken when exposing it to light.

Storage and Stability

Store in the dark. Long term storage at 4°C for up to 12 months
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Quality Control

Our media undergo sterility testing to assure they are free from bacterial and fungal contamination. The complete medium has been tested and shown to support optimal growth of human cardiomyocytes. In addition, pH, osmolality, endotoxin testing, and other parameters are evaluated in order to meet the standards required for optimal growth of cardiomyocytes.

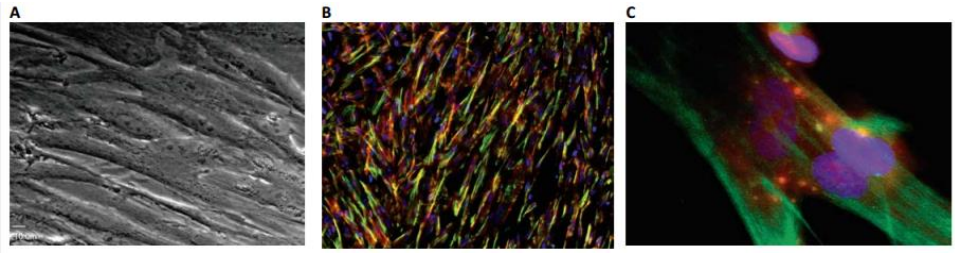

Figure 1. Applied StemCell's human cardiomyocytes (ASE-5052) in Cardiumyocyte Cellutions Maintenance Medium (complete). A. Phase contrast photomicrograph; B. Immunocytochemical staining for actin (green) and myosin heavy chain (red); C.Immunocytochemical staining for myosin heavy chain (green) and troponin T (red). Note the multinucleated pattern.

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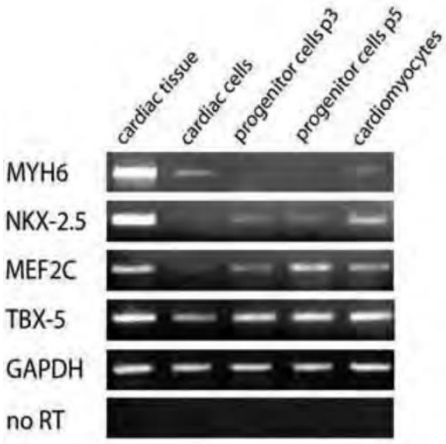
Figure 2. RT-PCR analysis of ASC's human cardiomyocytes and cardiac progenitor cells.

Whole human cardiac tissue was used as a positive control. Our human cardiac cells represent a mixture of cells that express cardiac structural proteins as well as cardiac transcription factors. Humancardiac progenitor cells propagated in culture and differentiated into functional cardiomyocytes will express myosin heavy chain 6 (MYH6, or MyHC-alpha, one of the major structural proteins in heart muscle) after 2 weeks of treatment. Some of the markers used to validate human cardiac progenitor cells and cardiomyocytes are NKX-2.5, MEF2C, TBX-5, and MYH6.



Warranty

Applied StemCell is committed to providing only superior-quality research products. Our products are specifically intended for research purposes only and are guaranteed to perform according to documented product specifications. Full warranty information for the products may be requested from our technical support or sales team at the numbers provided below.

Restricted Use

This product is for research use only and not intended for human or animal diagnostic, in vitro diagnostics. clinical procedures or therapeutic uses.

WARNING

The accompanying product contains human source material, treat as potentially infectious. All donors are tested for the presence of HIV-1, HIV-2, Hepatitis B and Hepatitis C viruses.

References

1. Wu et al. (2006). Developmental origin of a bipotential myocardial and smooth muscle cell precursor in the mammalian heart. *Cell*. 127: 1137-50.
2. Vliet et al. (2008). Progenitor cells isolated from the human heart: a potential cell source for regenerative therapy. *Netherlands Heart Journal.* 16(5): 163-169.
3. Tallini et al. (2009). c-kit expression identifies cardiovascular precursors in the neonatal heart. *Proceedings of the National Academy of Sciences of the USA.* 106(6): 1808-13.