



## Cardiac Cellutions Medium

### Product Information

**Catalog Number**      **ASM-6019**

**Description**      Applied StemCell has developed the Cardiac Cellutions Medium for the optimal propagation of human cardiac progenitor cells. Our Cardiomyocyte Cellutions Maintenance Medium has been tested and optimized using human cardiac progenitor cells. When used in conjunction with our human cardiac progenitor cells, this medium is guaranteed to ensure optimal growth of the cells.

Cardiac Cellutions Maintenance Medium contains animal-derived products.

**Quantity**      500 mL

**Shipping and Handling**      Cardiac Cellutions 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. Stable at 4°C for 1 year.

**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 optimally propagate human cardiac progenitor cells into cardiomyocytes. In addition, pH, osmolality, endotoxin testing, and other parameters are determined.

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Figures With Medium

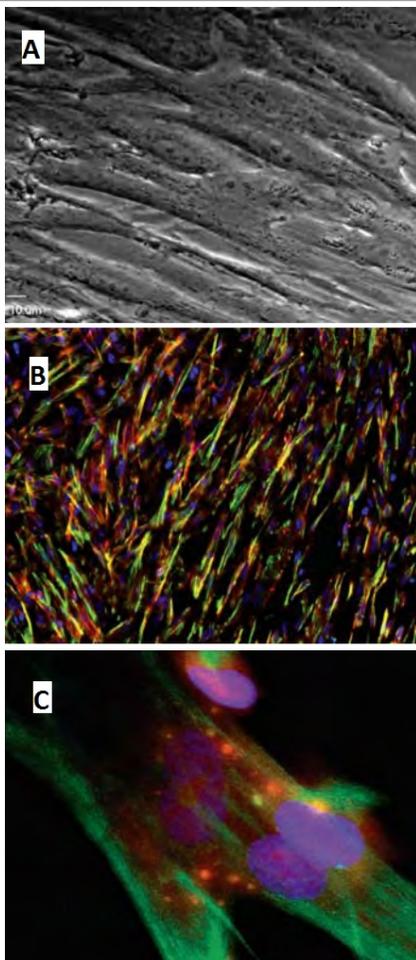


Figure 1: Applied StemCell's human cardiomyocytes (ASE-5052) in Cardiomyocyte Cellutions Maintenance Medium (complete)

- 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.

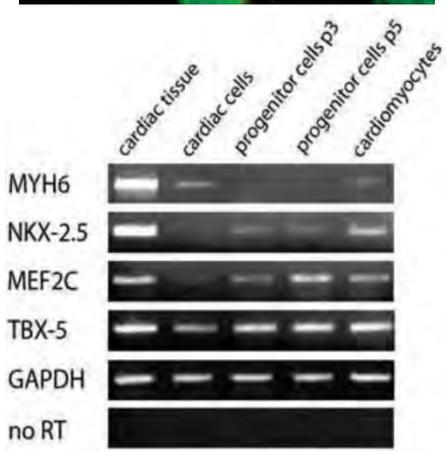


Figure 2: RT-PCR analysis of ASC's human cardiomyocytes and cardiac progenitor cells

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.

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**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 animal-derived materials.

## 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.