

Materials List for

# Ultrasound-guided Induced Pluripotent Stem Cell-derived Cardiomyocyte Implantation in Myocardial Infarcted Mice

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## Materials

| Name                                         | Company                  | Catalog Number | Comments |
|----------------------------------------------|--------------------------|----------------|----------|
| <b>Antibody</b>                              |                          |                |          |
| Cardiac troponin T                           | Abcam                    | ab8295         |          |
| Donkey Anti-Mouse IgG H&L (Alexa Fluor 488)  | Abcam                    | ab150105       |          |
| Donkey Anti-Mouse IgG H&L (Alexa Fluor 555)  | Abcam                    | ab150110       |          |
| Donkey Anti-Rabbit IgG H&L (Alexa Fluor 488) | Abcam                    | ab150073       |          |
| Donkey Anti-Rabbit IgG H&L (Alexa Fluor 555) | Abcam                    | ab150062       |          |
| Human cardiac troponin T                     | Abcam                    | ab91605        |          |
| Isolectin B4                                 | Vector                   | FL-1201        |          |
| Sarcomeric alpha actinin                     | Abcam                    | ab9465         |          |
| Wheat germ agglutinin                        | Thermo Fisher Scientific | W11261         |          |
| <b>Reagent</b>                               |                          |                |          |
| Accutase                                     | Thermo Fisher Scientific | 00-4555-56     |          |
| B27 Supplement(minus insulin)                | Thermo Fisher Scientific | A1895601       |          |
| B27 Supplement(serum free)                   | Thermo Fisher Scientific | 17-504-044     |          |
| Bouin's solution                             | Thermo Fisher Scientific | SDHT10132      |          |
| CHIR99021                                    | Selleck                  | CT99021        |          |
| cyclosporin A                                | Medchemexpress           | HY-B0579       |          |
| DIRECT RED                                   | Sigma-Aldrich            | 365548-25G     |          |
| DMEM/F12                                     | Thermo Fisher Scientific | 11320033       |          |
| DNeasy Blood & Tissue Kit                    | Qiagen                   | 69504          |          |
| FAST GREEN FCF                               | Sigma-Aldrich            | F7252-5G       |          |
| Glucose-free RPMI 1640                       | Thermo Fisher Scientific | 11879020       |          |
| IWR1                                         | Selleck                  | S7086          |          |
| lactic acid                                  | Sigma-Aldrich            | L6661          |          |

|                                                              |                          |                    |  |
|--------------------------------------------------------------|--------------------------|--------------------|--|
| Matrigel                                                     | BD Biosciences           | BD356234           |  |
| mTeSR1                                                       | Stem Cell Technologies   | 72562              |  |
| O.C.T. Compound                                              | SAKURA                   | 4583               |  |
| Paraformaldehyde                                             | Sigma-Aldrich            | 158127             |  |
| PowerUP SYBR Green MasterMix kit                             | Thermo Fisher Scientific | A25742             |  |
| RPMI1640                                                     | Thermo Fisher Scientific | 11875119           |  |
| STEMdiff Cardiomyocyte Freezing Medium/STEMdiff              | Stem Cell Technologies   | 5030               |  |
| STEMdiff Cardiomyocyte Support Medium                        | Stem Cell Technologies   | 5027               |  |
| Triton X-100                                                 | Sigma-Aldrich            | T8787              |  |
| ultrasound coupling agent                                    | CARENT                   | 22396269389        |  |
| Y-27632                                                      | Selleck                  | S6390              |  |
| <b>Equipment and Supplies</b>                                |                          |                    |  |
| Applied Biosystems                                           | Thermo Fisher Scientific | 7500 Real-Time PCR |  |
| cryostat                                                     | Leica                    | CM1950             |  |
| fluorescence microscope                                      | Olympus                  | IX83               |  |
| fine anatomical scissors                                     | Fine Science Tools       | 15000-08           |  |
| fine dissecting forceps                                      | Fine Science Tools       | 11255-20           |  |
| Micro syringe                                                | Hamilton                 | 7633               |  |
| Small animal anesthesia machine                              | MATRX                    | VMR                |  |
| Ultra-high resolution small animal ultrasound imaging system | VisualSonics             | Vevo 2100          |  |
| <b>Software</b>                                              |                          |                    |  |
| Statistical Product and Service Solutions                    | IBM                      | 21                 |  |
| Image J                                                      | NIH                      | 1.48               |  |
| <b>Human mitochondrial DNA primers</b>                       |                          |                    |  |
| the forward primer sequence                                  | CCGCTACCATAATCATCGCTAT   |                    |  |
| the reverse primer sequence                                  | TGCTAATACAATGCCAGTCAGG   |                    |  |