

Materials List for:

Digital PCR for Quantifying Circulating MicroRNAs in Acute Myocardial Infarction and Cardiovascular Disease

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Materials

Name	Company	Catalog Number	Comments
RNA-Extraction			
miRNeasy Serum/Plasma Kit (50)	Qiagen-Sample & Assay Technologies, Hilden, Deutschland	217184	Kit for microRNA extraction. Kit contains commercial buffer RWT (called number one in the manuscript) and RPE (called number two in manuscript).
miRNeasy Serum/Plasma Spike-in-Control; Syn-cel-miR-39 miRNA; 10pmol	Qiagen-Sample & Assay Technologies, Hilden, Deutschland	219610	Spike-in for normalisation , Sequence: 5'-UCACCGGGUGUAAAUCAGCUUG-3'
Reverse Transcription			
TaqMan MicroRNA Reverse Transcription Kit (1000 Reactions)	Applied Biosystems, Inc., Foster City, CA, USA	4366597	Kit for microRNA reverse transcription
TaqMan MicroRNA Assays M	Applied Biosystems, Inc., Foster City, CA, USA	4440887	Assays used in reverse transcription
hsa-miR-499 (750 RT/750 PCR rxns)	Applied Biosystems, Inc., Foster City, CA, USA	4440887	Assay Number 001352
cel-miR-39 (750 RT/750 PCR rxns)	Applied Biosystems, Inc., Foster City, CA, USA	4440887	Assay Number 000200
PCR Plate, 96-well, segmented, semi-skirted	Thermo Fisher Scientific, Waltham, MA, USA	AB0900	96 well plate for reverse transcription
Microseal 'B' seal Seals	Bio-Rad Laboratories, Inc., Hercules, CA, USA	MSB1001	Foil to ensure proper storage
C1000 Touch Thermal Cycler	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1851196	Cycler used for reverse transcription
Droplet Digital PCR			
100 nmole RNA oligo hsa-miR-499-5p	Integrated DNA Technologies	Custom	Sequence: 5'-phos-UUAAGACUUGCAGUGAUGUUU-3'
ddPCR Supermix for Probes (No dUTP)	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863024	Supermix used in droplet generation
TaqMan MicroRNA Assays	Applied Biosystems, Inc., Foster City, CA, USA	4440887	Assays used in digital PCR (fluorescent hydrolysis probe)
hsa-miR-499 (750 RT/750 PCR rxns)	Applied Biosystems, Inc., Foster City, CA, USA	4440887	Assay Number 001352, commercial primers
cel-miR-39 (750 RT/750 PCR rxns)	Applied Biosystems, Inc., Foster City, CA, USA	4440887	Assay Number 000200, commercial primers
DG8 Cartridges and Gaskets	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1864007	Cartridge takes up to 8 samples for droplet generation

DG8 Cartridge Holder	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863051	Holds cartridges in droplet generation
Droplet Generation Oil for Probes	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863005	Oil used in droplet generation
ddPCR 96-Well Plates	Bio-Rad Laboratories, Inc., Hercules, CA, USA	12001925	96 well plate for ddPCR
PCR Plate Heat Seal, foil, pierceable	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1814040	Pierceable foil, compatible with droplet reader
ddPCR Droplet Reader Oil	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863004	Oil used in droplet reading
QX100 or QX200 Droplet Generator	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863002	Droplet Generator, generates the droplets from sample/oil emulsion
PX1 PCR Plate Sealer	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1814000	Seals the plate before PCR
C1000 Touch Thermal Cycler	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1851196	Cycler used for ddPCR
QX100 or QX200 Droplet Reader	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863003	Reads PCR-positive and PCR-negative droplets with an optical detector
ddPCR Buffer Control for Probes	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1863052	Blank control and to fill up the remaining wells of 8-well cassette
Software			
QuantaSof Software	Bio-Rad Laboratories, Inc., Hercules, CA, USA	1864011	Program for droplet reading
Prism Windows 5	GraphPad Software Inc., La Jolla, CA, USA		Program for statistical analysis