

Materials List for

# Monochrome Multiplex Quantitative PCR Telomere Length Measurement

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## Materials

Name	Company	Catalog Number	Comments
0.5mL Tubes	USA Scientific	1605-0099	Seal-Rite 0.5mL Microcentrifuge Tubes, Sterile Storage Temperature and Conditions: Room temperature
1.5mL Tubes	USA Scientific	1615-5599	Seal-Rite 1.5mL Microcentrifuge Tubes, Sterile Storage Temperature and Conditions: Room temperature
100mM DTT	In House	Not Applicable	Made with stock DTT, diluted sodium acetate, and PCR Grade H <sub>2</sub> O Storage Temperature and Conditions: minus 20 °C
15mL Tubes	Thermo Fisher	14-959-53A	Corning 352196 Falcon 15mL Conical Centrifuge Tubes Storage Temperature and Conditions: Room temperature
1M MgCl <sub>2</sub>	Thermo Fisher	50152107	Biotang Inc 1M MgCl <sub>2</sub> 1M Magnesium Chloride Solution, Prepared in 18.2 Megohms Water and Filtered through 0.22 Micron Filter Storage Temperature and Conditions: 4 °C
1x Gold Buffer	In House	Not Applicable	10X Gold Buffer diluted with PCR Grade H <sub>2</sub> O Storage Temperature and Conditions: minus 20 °C
25mM dNTPs	New England BioLabs	N0446S	Deoxynucleotide Solution Set Storage Temperature and Conditions: minus 20 °C
5mL Tubes	Thermo Fisher	3391276	Argos Technologies Microcentrifuge Tubes – 5mL

			Storage Temperature and Conditions: Room temperature
96 Well Plate	Bio-Rad	HSP9601	Hard-Shell 96-Well PCR Plates, Low Profile, Thin Wall, Skirted, White / Clear Storage Temperature and Conditions: Room temperature
Aluminum Foil	Office Depot	3489072	Reynolds Wrap Stanard Aluminum Foil Roll, 12" x 75', Silver Storage Temperature and Conditions: Room temperature
AmpliTaQ Gold Kit – Polymerase and Buffer	Thermo Fisher	4311806	AmpliTaQ Gold DNA Polymerase with Gold Buffer and MgCl <sub>2</sub> (MgCl <sub>2</sub> in this kit is not used), 10X Gold Buffer, 2.5U AmpliTaQ Gold Polymerase Storage Temperature and Conditions: minus 20 °C
Betaine	Thermo Fisher	AAJ77507AB	Betaine, 5M Solution, Molecular Biology Grade, Ultrapure, 10mL Storage Temperature and Conditions: minus 20 °C
Big Tube Rack	Thermo Fisher	344817	Fisherbrand 4-Way Tube Rack Storage Temperature and Conditions: Room temperature
CFX Maestro Software	Bio-Rad	12004110	Software for real-time PCR plate setup, data collection, statistics, and graphing of results Storage Temperature and Conditions: Room temperature
CFX96 Optical Reaction Module for Real-Time PCR Systems with Starter Package	Bio-Rad	1845096	96-well optical module for real-time PCR Storage Temperature and Conditions: Room temperature
DTT	Fisher Scientific	AAJ1539706	Dithiothreitol, >99.5+ Molecular Biology Grade, 5 g Storage Temperature and Conditions: minus 20 °C
ELIMINase	Fisher Scientific	04-355-32	ELIMINase Laboratory Decontaminant Storage Temperature and Conditions: Room temperature
HEPA Filter	USA Scientific	Replacement Filters	High-Efficiency Particulate Air Filter for AirClean Workstations Storage Temperature and Conditions: Room temperature
Kimwipes	Thermo Fisher	06666A	Kimberly-Clark Professional Kimtech Science Kimwipes Delicate Task Wipers, 1-Ply Storage Temperature and Conditions: Room temperature
Loading Trough	Thermo Fisher	14387069	Thermo Scientific Matrix Reagent Reservoirs Storage Temperature and Conditions: Room temperature
Microsoft Excel	Microsoft	Not Applicable	Microsoft 365 package, Excel software application Storage Temperature and Conditions: Room temperature
Mini Centrifuge	Genesee Scientific	31-500B	Poseidon 31-500B Mini Centrifuge, Blue Lid Storage Temperature and Conditions: Room temperature
PCR Grade H <sub>2</sub> O	Thermo Fisher	AM9937	Nuclease-Free Water (not DEPC-Treated)

			Storage Temperature and Conditions: Room temperature
PCR Hood	USA Scientific	4263-2588	Nucleic Acid Workstation with HEPA Filtration, AirClean Systems Combination PCR Workstation Storage Temperature and Conditions: Room temperature
PCR Strips	Thermo Fisher	AB0776	Low Profile Tubes and Flat Caps, Strips of 8 Storage Temperature and Conditions: Room temperature
PCR Tube Rack	Thermo Fisher	344820	Fisherbrand 96-Well PCR Tube Rack Storage Temperature and Conditions: Room temperature
Pipette Tips (Multichannel)	Ranin	17005860	Pipette Tips SR LTS 20µL F 960A/5, 20µL Maximum Storage Temperature and Conditions: Room temperature
Pipette Tips (Single Channel)	USA Scientific	1181-3850	10µL Graduated TipOne RPT Filter Tips Storage Temperature and Conditions: Room temperature
Pipette Tips (Single Channel)	USA Scientific	1180-1850	20µL Beveled TipOne RPT Filter Tips Storage Temperature and Conditions: Room temperature
Pipette Tips (Single Channel)	USA Scientific	1111-0880	200µL Natural TipOne Pipette Tips in Racks Storage Temperature and Conditions: Room temperature
Pipette Tips (Single Channel)	USA Scientific	1111-2890	1000µL Natural Graduated TipOne Pipette Tips in Racks Storage Temperature and Conditions: Room temperature
Pipettors (Multichannel)	Ranin	17013802	Pipet-Lite Multi Pipette L8-10XLS, 0.5 to 10µL Storage Temperature and Conditions: Room temperature
Pipettors (Multichannel)	Ranin	17013803	Pipet-Lite Multi Pipette L8-20LS+, 2 to 20µL Storage Temperature and Conditions: Room temperature
Pipettors (Single Channel)	Thermo Fisher	F144802G	Gilson Pipetman Classic Pipets, 1 to 10µL Storage Temperature and Conditions: Room temperature
Pipettors (Single Channel)	Thermo Fisher	F123600	Gilson Pipetman Classic Pipets, 2 to 20µL Storage Temperature and Conditions: Room temperature
Pipettors (Single Channel)	Thermo Fisher	F123601	Gilson Pipetman Classic Pipets, 20 to 200µL Storage Temperature and Conditions: Room temperature
Pipettors (Single Channel)	Thermo Fisher	F123602	Gilson Pipetman Classic Pipets, 200 to 1000µL Storage Temperature and Conditions: Room temperature
Plate Sealing Film	Bio-Rad	MSB1001	Microseal "B" PCR Plate Sealing Film, Adhesive, Optical Storage Temperature and Conditions: Room temperature
Plate Spinner	Thermo Fisher	14-100-141	Fisherbrand Mini Plate Spinner Centrifuge, 230 V

			Storage Temperature and Conditions: Room temperature
Pre-Hood Filter	USA Scientific	4235-3724	Prefilter for AirClean Systems Workstations Storage Temperature and Conditions: Room temperature
R Software	The R Project for Statistical Computing	Not Applicable	R version 4.2.2 Storage Temperature and Conditions: Room temperature
Scale	Thermo Fisher	01-922-329	OHAUS 30430060 PR Series Analytical Balance, 62g Capacity Storage Temperature and Conditions: Room temperature
Scissors	Office Depot	458612	Office Depot Brand Scissors, 8", Straight, Black, Pack of 2 Storage Temperature and Conditions: Room temperature
Sharpies	Sharpie	2151734	Brush Twin Permanent Markers, Black Storage Temperature and Conditions: Room temperature
Single Copy Gene Forward Primer	Integrated DNA Technologies	Custom	See separate table Storage Temperature and Conditions: minus 20 °C when rehydrated
Single Copy Gene Reverse Primer	Integrated DNA Technologies	Custom	See separate table Storage Temperature and Conditions: minus 20 °C when rehydrated
Small Tube Rack	Thermo Fisher	21-402-17	Thermo Fisher 8601 Reversible Microtube Racks with Lid Storage Temperature and Conditions: Room temperature
Sodium Acetate	Thermo Fisher	J63560.EQE	3M NaOAc pH 5.2 Storage Temperature and Conditions: Room temperature
Stainless Steel Spatula	Thermo Fisher	3990240	Bel-Art SP Scienceware Stainless-Steel Sampling Spoon and Spatula Storage Temperature and Conditions: Room temperature
SYBR Green	Thermo Fisher	S7563	SYBR Green I Nucleic Acid Gel Stain – 10,000X Concentrate in DMSO Storage Temperature and Conditions: minus 20 °C when rehydrated
Syringe Filters	Fisher Scientific	09-927-55A	GD/X 25 mm Sterile Syringe Filter, cellulose acetate filtration medium, 0.2 µm Storage Temperature and Conditions: Room temperature
Syringes	Thermo Fisher	148232A	BD Luer-Lok Disposable Syringes without Needles, 10mL Storage Temperature and Conditions: Room temperature
TE Buffer	Fisher Scientific	BP2474100	TE Buffer, Tris-EDTA, 1X Solution, pH 7.6, Molecular Biology, Fisher BioReagents Storage Temperature and Conditions: Room temperature
Telomere Forward Primer	Integrated DNA Technologies	Custom	See separate table Storage Temperature and Conditions: minus 20 °C when rehydrated
Telomere Reverse Primer	Integrated DNA Technologies	Custom	See separate table Storage Temperature and Conditions: minus 20 °C when rehydrated
UV Light	USA Scientific	4288-2540	UV Light Bulb for Workstations

			Storage Temperature and Conditions: Room temperature
Vortex	Thermo Fisher	14-955-151	Fisherbrand Mini Vortex Mixer, 115 V, 50/60 Hz Storage Temperature and Conditions: Room temperature
Weigh Boat	Thermo Fisher	01-549-752	Fisherbrand Sterile Hexagonal Weighing Boat, 10mL Storage Temperature and Conditions: Room temperature