

Materials List for:

Studying RNA Interactors of Protein Kinase RNA-Activated during the Mammalian Cell Cycle

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Materials

Name	Company	Catalog Number	Comments
0.5 M EDTA, pH 8.0	Thermo Fisher Scientific	AM9260G	
1 M Tris, pH 7.0	Thermo Fisher Scientific	AM9855G	
1 M Tris, pH 8.0	Thermo Fisher Scientific	AM9855G	
1.7 mL microcentrifuge tube	Axygen	MCT-175-C	
10% Nonidet-p40 (NP-40)	Biosolution	BN015	
10X DNA loading buffer	TaKaRa	9157	
15 mL conical tube	SPL	50015	
3' adaptor			5'-rApp NN NNT GGA ATT CTC GGG TGC CAA GG/3ddC/-3'
3 M Sodium Acetate pH 5.5	Thermo Fisher Scientific	AM9740	
5' adaptor			5'-GUU CAG AGU UCU ACA GUC CGA CGA UCN NNN-3'
5 M NaCl	Thermo Fisher Scientific	AM9760G	
50 mL conical tube	SPL	50050	
Acid-phenol chloroform, pH 4.5	Thermo Fisher Scientific	AM9722	
Agencourt AMPure XP	Beckman Coulter	A63881	Magnetic beads DNA/RNA clean up
Antarctic alkaline phosphatase	New England Biolabs	M0289S	
Anti-DGCR8			Made in house
Anti-PKR (D7F7)	Cell signaling technology	12297S	
Anti-PKR (Milli)	Millipore EMD	07-151	
ATP (100 mM)	GE Healthcare	GE27-2056-01	
Bromophenol blue sodium salt	Sigma-aldrich	B5525	
Calf intestinal alkaline phosphatase	TaKaRa	2250A	
Cell scraper 25 cm 2-position	Sarstedt	83.183	
CMV promoter sequence			5'-CGCAATGGGCGGTAGGCGTG-3'
Dulbecco's modified eagle medium	Welgene	LM001-05	
dNTP mixture (2.5 mM)	TaKaRa	4030	
Ethanol, Absolute, ACS Grade	Alfa-Aesar	A9951	
Fetal bovine serum	Merck	M-TMS-013-BKR	
Formamide	Merck	104008	
Glycine	Bio-basic	GB0235	
GlycoBlue coprecipitant (15 mg/mL)	Thermo Fisher Scientific	AM9516	

Isopropanol	Merck	8.18766.1000	
NEBNext rRNA Depletion Kit	New England Biolabs	E6318	rRNA Depletion Kit
Nocodazole	Sigma-Aldrich	M1404	
Normal rabbit IgG	Cell signaling technology	2729S	
Paraformaldehyde	Sigma-Aldrich	6148	
PCR forward primer (RP1)			5'-AAT GAT ACG GCG ACC ACC GCG ATC TAC ACG TTC AGA GTT CTA CAG TCC GA-3'
PCR index reverse primer (RPI)			5'-CAA GCA GAA GAC GGC ATA CGA GAT NNN NNN GTG ACT GGA GTT CCT TGG CAC CCG AGA ATT CCA-3'
PCR tubes with flat cap, 0.2 mL	Axygen	PCR-02-C	
Phosphate buffered saline (PBS) Tablet	TaKaRa	T9181	
Phusion high-fidelity DNA polymerase	New England Biolabs	M0530	High-fidelity polymerase
PlateFuge microcentrifuge with swing-out rotor	Benchmark	c2000	
Polynucleotide kinase (PNK)	TaKaRa	2021A	
Proteinase K, recombinant, PCR Grade	Sigma-Aldrich	3115879001	
qPCR primer sequence: CO1 Heavy			Forward/Reverse: 5'- GCCATAACCCAATACCAAACG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CO1 Light			Forward/Reverse: 5'- TTGAGGTTGCGGTCTGTTAG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CO2 Heavy			Forward/Reverse: 5'- CTAGTCCTGTATGCCCTTTTCC-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CO2 Light			Forward/Reverse: 5'- GTAAAGGATGCGTAGGGATGG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CO3 Heavy			Forward/Reverse: 5'- CCTTTTACCACTCCAGCCTAG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CO3 Light			Forward/Reverse: 5'- CTCCTGATGCGAGTAATACGG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CYTB Heavy			Forward/Reverse: 5'- CAATTATACCCTAGCCAACCCC-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: CYTB Light			Forward/Reverse: 5'- GGATAGTAATAGGGCAAGGACG -3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: GAPDH			Forward/Reverse: 5'- CAACGACCACTTTGTCAAGC-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND1 Heavy			Forward/Reverse: 5'- TCAAACCTCAAACCTACGCCCTG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND1 Light			Forward/Reverse: 5'- GTTGTGATAAGGGTGGAGAGG-3'/5'- CGCAAATGGGCGGTAGGCCGTG-3'

qPCR primer sequence: ND4 Heavy			Forward/Reverse: 5'-CTCACACTCATTCTCAACCCC-3'/5'-CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND4 Light			Forward/Reverse: 5'-TGTTTGTCTAGGCAGATGG-3'/5'-CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND5 Heavy			Forward/Reverse: 5'-CTAGGCCTTCTTACGAGCC-3'/5'-CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND5 Light			Forward/Reverse: 5'-TAGGGAGAGCTGGGTTGTTT-3'/5'-CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND6 Heavy			Forward/Reverse: 5'-TCATACTCTTTACCCACAGC-3'/5'-CGCAAATGGGCGGTAGGCCGTG-3'
qPCR primer sequence: ND6 Light			Forward/Reverse: 5'-TGCTGTGGGTGAAAGAGTATG-3'/5'-CGCAAATGGGCGGTAGGCCGTG-3'
Random hexamer	Thermo Fisher Scientific	SO142	
Recombinant Dnase I (Rnase-free) (5 U/μL)	TaKaRa	2270A	
Recombinant Rnase inhibitor (40 U/μL)	TaKaRa	2313A	
Ribo-Zero rRNA Removal Kit	Illumina	MRZH116	rRNA Removal Kit
Rotator	FINEPCR, ROTATOR AG	D1.5-32	
RT primer sequence: CO1 Heavy			5'-CGCAAATGGGCGGTAGGCCGTGTGAGGTT
RT primer sequence: CO1 Light			5'-CGCAAATGGGCGGTAGGCCGTGGCCATAAC
RT primer sequence: CO2 Heavy			5'-CGCAAATGGGCGGTAGGCCGTGGTAAAGGA
RT primer sequence: CO2 Light			5'-CGCAAATGGGCGGTAGGCCGTGCTAGTCCT
RT primer sequence: CO3 Heavy			5'-CGCAAATGGGCGGTAGGCCGTGCTCCTGAT
RT primer sequence: CO3 Light			5'-CGCAAATGGGCGGTAGGCCGTGCCTTTTACC
RT primer sequence: CYTB Heavy			5'-CGCAAATGGGCGGTAGGCCGTGGGATAGTA
RT primer sequence: CYTB Light			5'-CGCAAATGGGCGGTAGGCCGTGCAATTATAC
RT primer sequence: GAPDH			5'-CGCAAATGGGCGGTAGGCCGTGTGAGCGAT
RT primer sequence: ND1 Heavy			5'-CGCAAATGGGCGGTAGGCCGTGGTTGTGAT
RT primer sequence: ND1 Light			5'-CGCAAATGGGCGGTAGGCCGTGTCAAACCTC
RT primer sequence: ND4 Heavy			5'-CGCAAATGGGCGGTAGGCCGTGTGTTTGTCC
RT primer sequence: ND4 Light			5'-CGCAAATGGGCGGTAGGCCGTGCCCTCACAC
RT primer sequence: ND5 Heavy			5'-CGCAAATGGGCGGTAGGCCGTGTTGGGTT
RT primer sequence: ND5 Light			5'-CGCAAATGGGCGGTAGGCCGTGCAATTGTCG

RT primer sequence: ND6 Heavy			5'- CGCAAATGGGCGGTAGGCGTGGGTTGAGG
RT primer sequence: ND6 Light			5'- CGCAAATGGGCGGTAGGCGTGCCATAAT
Siliconized polypropylene 1.5 mL G-tube	Bio Plas	4167SLS50	
Sodium dedecyl sulfate	Biosesang	S1010	
Sodium deoxycholate	Sigma-Aldrich	D6750	
SUPERase In Rnase inhibitor	Thermo Fisher Scientific	AM2694	
SuperScript III reverse transcriptase	Thermo Fisher Scientific	18080093	Reverse transcriptase for library preparation
SuperScript IV reverse transcriptase	Thermo Fisher Scientific	18090010	Reverse transcriptase for qRT-PCR
SYBR gold nucleic acid gl stain	Thermo Fisher Scientific	S11494	
T4 polynucleotide kinase	New England Biolabs	M0201S	
T4 RNA ligase 1 (ssRNA Ligase)	New England Biolabs	M0204	
T4 RNA ligase 2, truncated KQ	New England Biolabs	M0373	
Thermomixer	Eppendorf ThermoMixer C with ThermoTop		
Thymidine	Sigma-Aldrich	T9250	
Tris-borate-EDTA buffer (TBE)	TaKara	T9122	
Triton X-100	Promega	H5142	
Ultralink Protein A sepharose beads	Thermo Fisher Scientific	22810	Protein A beads
Ultrasonicator	Bioruptor		
Urea	Bio-basic	UB0148	
Vortex mixer	DAIHAN Scientific	VM-10	
Xylene cyanol	Sigma-Aldrich	X4126	
γ - ³² P-ATP (10 μ Ci/ μ L, 3.3 μ M)	PerkinElmer	BLU502A100UC	