

Materials List for:

An In Vitro Protocol for Evaluating MicroRNA Levels, Functions, and Associated Target Genes in Tumor Cells

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Materials

Name	Company	Catalog Number	Comments
15 mL conical tube	SPL Life Sciences	50015	
24-well plate	Thermo Scientific	142475	
50 mL conical tube	SPL Life Sciences	50050	
6-well plate	Falcon	353046	
6x DNA loading dye	Real Biotech Corporation	RD006	1 mL
8-cap strip	Applied Biosystems	N8010535	For cDNA synthesis
8-tube strip	Applied Biosystems	N8010580	For cDNA synthesis
96-well plate	Falcon	353072	
Acetic acid	Sigma	A6283-1L	1 L
Agarose A	Bio Basic	D0012	500 g
Alkaline phosphatase	New England Biolabs	M0290S	10,000 U/mL
Ampicillin	Bio basic Canada Inc	AB0028	25 g
AriaMx 96 tube strips	Agilent Technologies	401493	For real time PCR
AriaMx real-time PCR system	Agilent Technologies	G8830A	qPCR amplification, detection, and data analysis
AsiSI	New England Biolabs	R0630	10,000 units/mL
CAPAN-1 cells	ATCC	HTB-79	
Cell culture hood	Labtech		Model: LCB-1203B-A2
Counting chambers with V-slash	Paul Marienfeld	650010	Cells counter
CutSmart buffer	New England Biolabs	B7204S	10X concentration
DMEM	Gibco	11965-092	500 mL
DNA gel extraction kit	Bionics	DN30200	200 prep
DNA ladder	NIPPON Genetics EUROPE	MWD1	1 Kb ladder
DNase I	Invitrogen	18068015	100 units
Dual-luciferase reporter assay system	Promega	E1910	100 assays
Fetal bovine serum	Gibco	26140-079	500 mL
HIT competent cells	Real Biotech Corporation(RBC)	RH617	Competent cells
HPNE cells	ATCC	CRL-4023	
LB agar broth	Bio Basic	SD7003	250 g
Lipofectamine 2000	Invitrogen	11668-027	0.75 mL
Lipofectamine RNAiMax	Invitrogen	13778-075	0.75 mL
Luminometer	Promega		Model: E5311
Microcentrifuge tube	Eppendorf	22431021	
Microplate reader	TECAN		Infinite F50

miRNA control mimic	Ambion	4464058	5 nmole
miRNA-107 mimic	Ambion	4464066	5 nmole
miRNeasy Mini Kit	Qiagen	217004	50 prep
Mupid-2plus (electrophoresis system)	TaKaRa		Model: AD110
NotI	New England Biolabs	R3189	20,000 units/mL
Oligo explorer program	GeneLink		For primer design
Optical tube strip caps (8x Strip)	Agilent Technologies	401425	For real time PCR
Opti-MEM	Gibco	31985-070	500 MI
PANC-1 cells	ATCC	CRL-1469	
Penicillin/streptomycin	Gibco	15140-122	100 mL
Phosphate buffer saline	Gibco	14040117	1000 mL
Plasmid DNA miniprep S& V kit	Bionics	DN10200	200 prep
PrimeSTAR GXL DNA polymerase	TaKaRa	R050A	250 units
Shaker	TECAN		Shaking platform
Shaking incubator	Labtech		Model: LSI-3016A
Sigmaplot 14 software	Systat Software Inc		For dose-response curve generation
Sulforhodamine B powder	Sigma	S1402-5G	5 g
SYBR green master mix	Smobio	TQ12001805401-3	Binding fluorescent dye for dsDNA
T4 DNA ligase	TaKaRa	2011A	25,000 U
TaqMan master mix	Applied Biosystems	4324018	200 reactions, no AmpErase UNG
TaqMan microRNA assay (hsa-miR-107)	Applied Biosystems	4427975	Assay ID: 000443 (50RT, 150 PCR rxns)
TaqMan microRNA assay (hsa-miR-301)	Applied Biosystems	4427975	Assay ID: 000528 (50RT, 150 PCR rxns)
TaqMan miR RT kit	Applied Biosystems	4366597	1,000 reactions
Thermo CO ₂ incubator (BB15)	ThermoFisher Scientific		37 °C and 5% CO ₂ incubation
Trichloroacetic acid	Sigma	91228-100G	100 g
Trizma base	Sigma	T4661-100G	100 g
Ultrapure water	Invitrogen	10977-015	500 mL
Veriti 96 well thermal cycler	Applied Biosystems		For amplification of DNA (or cDNA)
XhoI	New England Biolabs	R0146	20,000 units/mL