

Materials List for:

Chitosan/Interfering RNA Nanoparticle Mediated Gene Silencing in Disease Vector Mosquito Larvae

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Materials

Name	Company	Catalog Number	Comments
0.02 ml pipette	Rainin	PR20	for resuspension of interfering RNA
0.2 ml pipette	Rainin	PR200	for resuspension of interfering RNA and preparation of interfering RNA/nanoparticles
0.5 ml graduated tube	Fischer Scientific	05-408-120	for aliquoting resuspended interfering RNA
1 ml pipette	Rainin	PR1000	for resuspension of interfering RNA and preparation of interfering RNA/nanoparticles
1.5 ml graduated tube	Fischer Scientific	05-408-046	for preparation of interfering RNA/nanoparticles
1M Sodium Acetate, pH 4.5	TEKnova	S0299	to prepare sodium acetate buffer
Acetic Acid, AIRSTAR. ACS, USP, FCC Grade	BDH	VWR BDH3092-500MLP	to prepare sodium acetate buffer
Agarose Genetic Technology Grade	MP Biomedicals LLC.	800668	to coat prepared interfering RNA/nanoparticles
Centrifuge	Eppendorf AG	5415D	to pellet interfering RNA/nanoparticles
Chitosan, from shrimp shells	Sigma-Aldrich	C3646-25G	to combine with interfering RNA for preparation of interfering RNA/nanoparticles
Dry Yeast	Universal Food Corp	NA	to prepare mosquito larval food with interfering RNA/nanoparticles
E-RNAi tool	German Cancer Research Center	NA	for design of dsRNA; http://www.dkfz.de/signaling/e-rnai3/
goldfish food	Wardley	Goldfish FLAKE FOOD	to prepare mosquito larval food with interfering RNA/nanoparticles
Heated water bath	Thermo Scientific	51221048	to heat the interfering RNA/nanoparticles at 55°C
Ice	not applicable	not applicable	for thawing interfering RNA and preparation of interfering RNA/nanoparticles
Name	Company	Catalog Number	Comments
Ice bucket	Fisher Scientific	02-591-44	for storage of ice used during the procedure

liver powder	MP Biomedicals LLC.	900396	to feed mosquito larvae post interfering RNA/nanoparticle treatment
Microwave oven	A variety of vendors	not applicable	to prepare 2% agarose solution
petridish (100 x 15 mm)	Fischer Scientific	875713	interfering RNA/nanoparticle feeding chamber for larvae
pH meter	Mettler Toledo	S220	for preparation of buffers
Razor blade	Fischer Scientific	12-640	to divide the interfering RNA/nanoparticle pellet for feedings
siRNA	Thermo Scientific/Dharmacon	custom	for preparation of siRNA/nanoparticles
Sodium Sulfate, Anhydrous (Na ₂ SO ₄)	BDH/distributed by VWR	VWR BDH0302-500G	to prepare 50 mM sodium sulfate solution in which the interfering RNA will be resuspended
Thermometer	VWR	61066-046	to measure the water bath temperature
Tooth picks	VWR	470146-908	for stirring during interfering RNA/nanoparticle food preparation and cutting gel pellets
Ultralow freezer	A variety of vendors	not applicable	for storage of interfering RNA aliquots and interfering RNA/nanoparticles at -80°C
Vortex mixer	Fischer Scientific	02-216-108	for preparation of chitosan/interfering RNA
Weight paper	Fischer Scientific	NC9798735	to divide the interfering RNA/nanoparticle pellet for feedings