

Isolation of microRNAs from Tick *Ex Vivo* Salivary Gland Cultures and Extracellular Vesicles

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jove.com/video/63618

Materials

Name	Company	Catalog Number	Comments
0.22 µm syringe filter	GenClone	25-240	
1 µm nylon syringe filter	Tisch Scientific	283129028	
1 inch black adhesive	Amazon	B00FQ937NM	Capsule
10 mL needleless syringe	Exelint	26265	
3' and 5' Adapters	Illumina	20024906	NEXTFLEX Small RNA-Seq Kit
4 mm vannas scissors	Fine Science Tools	15000-08	
4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid	Sigma-Aldrich	1.1523	
70Ti rotor	Beckman Coulter	337922	
Amphotericin	Corning	30-003-CF	
Beads	Illumina	20024906	NEXTFLEX Small RNA-Seq Kit
Bioanalyzer	Agilent	G2939BA	
Bioanalyzer kit	Agilent	5067-1513	
Centrifuge 5425	Eppendorf		
Chloroform	Macron	UN1888	
Cyverse Discovery Environment			https://cyverse.org/discovery-environment
Dissecting microscope	Nikon	SMZ745	
Double-sided carpet tape	amazon	286373	
Falcon Tubes, 50 mL	VWR	21008-940	
Fetal Bovine Serum	Gibco	FBS-02-0050	
fine forceps	Excelta	5-S-SE	
Foamies, 2 mm	Amazon	B004M5QGBQ	Capsule
Isoflurane	Phoenix Pharmaceuticals manufactured	193.33165.3	
Ixodes scapularis	CDC, Oklahoma State University		
L15C300 medium	In-lab		
lipoprotein-cholesterol concentrate	MPI	02191476-CF	

Microscope slide	VWR	10118-596	
miRDeep2			https://github.com/rajewsky-lab/mirdeep2
M-MuLV Reverse Transcriptase	Illumina	20024906	NEXTFLEX Small RNA-Seq Kit
molecular grade ethanol	Fischer Bioreagents	UN1170	
multi-well 24 well tissue culture treated plate	Corning	353047	
Nanoparticle Tracking Analyzer machine	Malvern Panalytical		
Nanosep with 300K Omega filter	Pall Corporation	OD3003C33	
NEXTFLEX Small RNA-Seq Kit v3	PerkinElmer		
NextSeq 500/550 High Output Kit (75 cycles)	Illumina	20024906	
Optima XPN 90 Ultracentrifuge	Beckman Coulter		
Penicillin	ThermoFisher Scientific	ICN19453780	
Pipettes	Eppendorf		
polycarbonate centrifuge bottle	Beckman Coulter	355618	
Qiagen miRNeasy kit	Qiagen	217084	
QIAzol lysis reagent	Qiagen	79306	
Qubit	ThermoFisher	Q32880	
Qubit kit	ThermoFisher	Q10212	
Rabbits	Charles River		
Reverse Universal Primer	Illumina	20024906	NEXTFLEX Small RNA-Seq Kit
Rhipicephalus microplus	Cattle Fever Tick Research Laboratory		
Rifampicin	Fischer Bioreagents	215544	
RNA later	Invitrogen	833280	
RNAse free tubes	VWR	87003294	
RNAse inhibitor	Thermo Fischer	11111729	
RNAse/DNAse free water	Qiagen	217084	
RNeasy Minelute spin column	Qiagen	217084	Qiagen miRNeasy kit
RPE Buffer	Qiagen	217084	Qiagen miRNeasy kit
RT Buffer	Illumina	20024906	NEXTFLEX Small RNA-seq kit
RT Forward Primer	Illumina	20024906	NEXTFLEX Small RNA-seq kit
RTE Buffer	Qiagen	217084	Qiagen miRNeasy kit
Sodium bicarbonate	Sigma-Aldrich	S6014-25G	
Sorvall ST16	Thermo Fischer	75004380	
Sterilized Gauze sponges	Covidien	2187	
Sterilized PBS	Sigma	RNBK0694	
streptomycin	thermoFisher Scientific	15240062	
TapeStation	Agilent	G2991BA	
Tear Mender Instant Fabric and Leather Adhesive	Amazon	7.42836E+11	Capsule
Tissue Adhesive	3M VetBond		
Triple Antibiotics	dechra	17033-122-75	
Tryptose phosphate broth	BD	BD 260300	