

**Materials List for:****Purification and Analysis of *Caenorhabditis elegans* Extracellular Vesicles**Joshua C. Russell<sup>1</sup>, Nadia Postupna<sup>1</sup>, Alexandra Golubeva<sup>1</sup>, C. Dirk Keene<sup>1</sup>, Matt Kaeberlein<sup>1</sup><sup>1</sup>Department of Pathology, University of WashingtonCorrespondence to: Joshua C. Russell at [jcr32@uw.edu](mailto:jcr32@uw.edu), Matt Kaeberlein at [kaeber@uw.edu](mailto:kaeber@uw.edu)URL: <https://www.jove.com/video/60596>DOI: [doi:10.3791/60596](https://doi.org/10.3791/60596)**Materials**

Name	Company	Catalog Number	Comments
0.22 µm filters units	Genesee	25-233	For clarifying the conditioned media from debris
1% solution of Triton X-100	ThermoFisher	HFH10	Add this to 0.05% to lyse EVs
10 cm high growth plates	N/A	N/A	For cultivating large populations of worms
2 L bottom baffled flasks	ThermoFisher	4110-2000PK	For conducting size exclusion separation of EVs
40 µm mesh	Amazon	CMY-0040-C/5PK-05	Use this to separate adult worms from larval stages
5 µm mesh	Amazon	CMN-0005-C	Use this to separate L1s from other worm stages
6 cm normal growth medium worm cultivation plate	N/A	N/A	For cultivating small populations of worms
Amicon Ultra-15 Centrifugal Filter 10 kD mwco	MilliporeSigma	C7715	For concentrating the size exclusion elute
Amicon Ultra-4 Centrifugal Filter 10 kD mwco	MilliporeSigma	C78144	For concentrating the conditioned media
Apogee A50 flow cytometer	Apogee		This flow cytometer is specialized for resolving nanometer size particles
ApogeeMix	Apogee	1493	Assess light scatter and fluorescence performance of FACS
DI-8-ANEPPS	ThermoFisher	D3167	Add this at 20 uM to label EVs
Disposable chromatography Column	BioRad	7321010	For conducting size exclusion separation of EVs
Geletin	MilliporeSigma	G9391-100G	To treat pipette tips so that worms do not stick
HALT protease inhibitor	ThermoFisher	87785	Add to EV sample to prevent protein degradation
Low-protein binding collection tubes	ThermoFisher	90410	Use these for EV samples
NaCl	Sigma	S7653-1KG	For sucrose floatation of worms
S Basal buffer	N/A	N/A	Recipe in WormBook
Sephadex CL-2B resin	MilliporeSigma	CL2B300-100ML	For conducting size exclusion separation of EVs
Small orbital shaker	ABC Scientific	83211301	Use this for worm S Basal incubation
Sucrose	Sigma	S8501-5KG	For sucrose floatation of worms