

Materials List for

# Nuclei Isolation from Adult Mouse Kidney for Single-Nucleus RNA-Sequencing

Janna Leiz<sup>\*1,2</sup>, Christian Hinze<sup>\*1,2</sup>, Anastasiya Boltengagen<sup>3</sup>, Caroline Braeuning<sup>4</sup>, Christine Kocks<sup>3</sup>, Nikolaus Rajewsky<sup>3</sup>, Kai M. Schmidt-Ott<sup>1,2</sup>

<sup>1</sup>Department of Nephrology and Medical Intensive Care Medicine, Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin <sup>2</sup>Molecular and Translational Kidney Research, Max-Delbrück-Center for Molecular Medicine in the Helmholtz Association (MDC) <sup>3</sup>Berlin Institute of Medical Systems Biology (BIMSB), Systems Biology of Gene Regulatory Elements, Max-Delbrück-Center for Molecular Medicine in the Helmholtz Association (MDC) <sup>4</sup>Berlin Institute of Medical Systems Biology (BIMSB), Max Delbrück Center for Molecular Medicine in the Helmholtz Association (MDC)

\*These authors contributed equally

## Corresponding Authors

**Nikolaus Rajewsky**  
rajewsky@mdc-berlin.de

**Kai M. Schmidt-Ott**  
kai.schmidt-ott@charite.de

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jove.com/video/62901

## Materials

Name	Company	Catalog Number	Comments
Cell sorter	-	-	For fluorescence-activated cell sorting (FACS); e.g. BD FACSAria Cell Sorter.
Centrifuge 5810 R	Eppendorf	5811000015	
Countess Cell Counting Chamber Slides	Invitrogen	C10228	
Countess II FL Automated Cell Counter	Invitrogen	AMQAF1000	Needs to contain DAPI light cube to count nuclei. Alternatively, nuclei can be counted manually under fluorescence microscope.
4',6-Diamidino-2-phenyl-indol-dihydrochlorid (DAPI)	Biotrend	40043/b	Stock solution prepared with a concentration of 100 µM. Used for nuclei staining in a final concentration of 2 µM.
D(+)-Sucrose ≥99.9%, ultrapure DNase-, RNase-free	VWR	0335-500G	
DNA LoBind Microcentrifuge Tubes (1.5 mL)	Eppendorf	22431021	
Ethanol, 70 %	-	-	
FACS tubes	pluriSelect	43-10100-46	
KIMBLE Dounce tissue grinder set 2 mL complete	Sigma-Aldrich	D8938-1SET	
Minisart Syringe Filters 0.2 µm	Sartorius	16534-GUK	
Nuclease-free Water	Invitrogen	AM9937	
Nuclei EZ Prep Nuclei Isolation Kit	Sigma-Aldrich	NUC-101	Nuclei EZ Lysis Buffer (Product No. N3408) needed for buffer preparation.

PBS (Phosphate-Buffered Saline) 1X without calcium or magnesium	Corning	21-040-CV	
Petri dishes, polystyrene 60 mm	Sigma-Aldrich	P5481	
Phosphate-Buffered Saline (PBS) with 10% Bovine Albumin	Sigma-Aldrich	SRE0036	
pluriStrainer Mini 100 $\mu$ m	pluriSelect	43-10100-46	
pluriStrainer Mini 20 $\mu$ m	pluriSelect	43-10020-40	
pluriStrainer Mini 40 $\mu$ m	pluriSelect	43-10040-40	
Polystyrene Centrifuge Tube (15 mL)	Falcon	352099	
Razor blades	-	-	
RiboLock RNase Inhibitor (40 U/ $\mu$ L)	Thermo Fisher	EO0384	
Ribonucleoside-vanadyl complex	New England Biolabs	S1402S	Follow manufacturer's instructions ( <a href="https://international.neb.com/products/s1402-ribonucleoside-vanadyl-complex#Product%20Information">https://international.neb.com/products/s1402-ribonucleoside-vanadyl-complex#Product%20Information</a> ). Upon use the 200 mM stock solution is reconstituted to a green-black clear solution by incubating at 65 °C.
RNA <sup>later</sup> Stabilization Solution	Invitrogen	AM7020	
RNase AWAY	Fisher Scientific	11952385	