

Materials List for:

# High-Throughput DNA Plasmid Multiplexing and Transfection Using Acoustic Nanodispensing Technology

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URL: <https://www.jove.com/video/59570>

DOI: [doi:10.3791/59570](https://doi.org/10.3791/59570)

## Materials

Name	Company	Catalog Number	Comments
384LDV Microplate	Labcyte	LP-0200	
384-well Microplate µClear Black	Greiner	781906	
Ampicilin	Sigma	A9393-5G	Selection antibiotic for bacteria transformed with ampicilin expressing vector
Android Tablet	Samsung	Galaxy Note 8	used to guide the user while the source plate manual dispense
Aniospray Surf 29	Anios	2421073	disinfectant to clean the MicroFlo head
Columbus software	Perkin Elmer		image analysis software
Dulbecco's Modified Eagle Medium (DMEM), high glucose, GlutaMAX Supplement, pyruvate	Thermo Fisher Scientific	10566032	cell culture medium
Echo Cherry Pick 1.5.3 software	Labcyte		Software enabling ADE-based dispenses by the Echo550 device from a *.csv file; nanodispenser software
Echo550	Labcyte		ADE-based dispenser
Fetal Bovine Serum	Thermo Fisher Scientific	16000044	to add in cell culture medium
Formalin solution, neutral buffered, 10%	Sigma-Aldrich	HT501128-4L	to fix cell
HeLa cells	ATCC	HeLa (ATCC® CCL-2™)	
Hoechst 33342, Trihydrochloride, Trihydrate	Thermo Fisher Scientific	H3570	10 mg/mL Solution in Water
INCell Analyzer 6000	GE Healthcare	29043323	automated laser-based confocal imaging platform
LB medium	Thermoischer Scientific LB Broth Base (Lennox L Broth Base)®, powder	12780052	culture medium for bacteria growth
Lysis Buffer (A2)	Macherey-Nagel	740912.1	Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture
MicroFlo 10µL cassette	Biotek Instruments Inc	7170013	to use with the Microflo Dispenser
MicroFlo 1µL cassette	Biotek Instruments Inc	7170012	to use with the Microflo Dispenser
MicroFlo Dispenser	Biotek Instruments Inc	7171000	peristaltic pump-based liquid handler device
Microvolume spectrophotometer	Denovix	DS-11 Spectrophotometer	Measure the DNA concentration of samples

mVenus plasmid	mVenus cDNA was cloned by enzymatic restriction digestion and ligation in Age1/BsrG1 sites of the tdTomato-N1 plasmid		Vector type: Mammalian Expression, Fusion Protein: mVenus
Neutralization Buffer (A3)	Macherey-Nagel	740913.1	Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture
NucleoSpin Plasmid kit	Macherey-Nagel	740588.50	used to prepare plasmid from bacterial culture
Optimal-Modified Eagle Medium (Opti-MEM) Medium	Thermo Fisher Scientific	31985070	
optional Wash bufferWash Buffer (A4)	Macherey-Nagel	740914.1	Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture
orbital shaker	incubated large capacity shaker	444-7084	Used to grow bacteria under gentle agitation and 37°C
Penicillin-Streptomycin	Thermo Fisher Scientific	15140122	10,000 U/mL
Phosphate-Buffered Saline	Thermo Fisher Scientific	10010001	
Plasmid mini-columns	Macherey-Nagel	740499.250	Silica membrane mini-column to prepare plasmid from bacterial culture
Resuspension Buffer (A1)	Macherey-Nagel	740911.1	Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture
RNAse A	Macherey-Nagel	740505	Enzyme from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture
tdTomato-N1 plasmid	Addgene	Plasmid #54642	Vector type: Mammalian Expression, Fusion Protein: tdTomato
TransIT-X2 Dynamic Delivery System	Mirus Bio	MIR 6000	
Wash Buffer (AW)	Macherey-Nagel	740916.1	Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture
3D printer	Crealty	CR10S	used to print the plate adapter
Blender Software	<a href="https://www.blender.org/">https://www.blender.org/</a> Free software under GNU General Public License (GPL).	version 2.79b	used to design the plate adapter