# Materials List for:
## High-Throughput DNA Plasmid Multiplexing and Transfection Using Acoustic Nanodispensing Technology

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### Materials

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Catalog Number</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>384LDV Microplate</td>
<td>Labcyte</td>
<td>LP-0200</td>
<td></td>
</tr>
<tr>
<td>384-well Microplate μClear Black</td>
<td>Greiner</td>
<td>781906</td>
<td></td>
</tr>
<tr>
<td>Ampicillin</td>
<td>Sigma</td>
<td>A9393-5G</td>
<td>Selection antibiotic for bacteria transformed with ampicillin expressing vector</td>
</tr>
<tr>
<td>Android Tablet</td>
<td>Samsung</td>
<td>Galaxy Note 8</td>
<td>used to guide the user while the source plate manual dispense</td>
</tr>
<tr>
<td>Aniospray Surf 29</td>
<td>Anios</td>
<td>2421073</td>
<td>disinfectant to clean the MicroFlo head</td>
</tr>
<tr>
<td>Columbus software</td>
<td>Perkin Elmer</td>
<td></td>
<td>image analysis software</td>
</tr>
<tr>
<td>Dulbecco's Modified Eagle Medium (DMEM), high glucose, GlutaMAX Supplement, pyruvate</td>
<td>Thermo Fisher Scientific</td>
<td>10566032</td>
<td>cell culture medium</td>
</tr>
<tr>
<td>Echo Cherry Pick 1.5.3 software</td>
<td>Labcyte</td>
<td></td>
<td>Software enabling ADE-based dispenses by the Echo550 device from a *.csv file; nanodispenser software</td>
</tr>
<tr>
<td>Echo550</td>
<td>Labcyte</td>
<td></td>
<td>ADE-based dispenser</td>
</tr>
<tr>
<td>Fetal Bovine Serum</td>
<td>Thermo Fisher Scientific</td>
<td>16000044</td>
<td>to add in cell culture medium</td>
</tr>
<tr>
<td>Formalin solution, neutral buffered, 10%</td>
<td>Sigma-Aldrich</td>
<td>HT501128-4L</td>
<td>to fix cell</td>
</tr>
<tr>
<td>HeLa cells</td>
<td>ATCC</td>
<td>HeLa (ATCC® CCL-2™)</td>
<td></td>
</tr>
<tr>
<td>Hoechst 33342, Trihydrochloride, Trihydrate</td>
<td>Thermo Fisher Scientific</td>
<td>H3570</td>
<td>10 mg/mL Solution in Water</td>
</tr>
<tr>
<td>INCell Analyzer 6000</td>
<td>GE Healthcare</td>
<td>29043323</td>
<td>automated laser-based confocal imaging platform</td>
</tr>
<tr>
<td>LB medium</td>
<td>Thermoisier Scientific LB Broth Base (Lennox L Broth Base)®, powder</td>
<td>12780052</td>
<td>culture medium for bacteria growth</td>
</tr>
<tr>
<td>Lysis Buffer (A2)</td>
<td>Macherey-Nagel</td>
<td>740912.1</td>
<td>Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture</td>
</tr>
<tr>
<td>MicroFlo 10µL cassette</td>
<td>Biotek Instruments Inc</td>
<td>7170013</td>
<td>to use with the Microflo Dispenser</td>
</tr>
<tr>
<td>MicroFlo 1µL cassette</td>
<td>Biotek Instruments Inc</td>
<td>7170012</td>
<td>to use with the Microflo Dispenser</td>
</tr>
<tr>
<td>MicroFlo Dispenser</td>
<td>Biotek Instruments Inc</td>
<td>7171000</td>
<td>peristaltic pump-based liquid handler device</td>
</tr>
<tr>
<td>Microvolume spectrophotometer</td>
<td>Denovix</td>
<td>DS-11 Spectrophotometer</td>
<td>Measure the DNA concentration of samples</td>
</tr>
<tr>
<td>Item</td>
<td>Vendor</td>
<td>Part Number</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------</td>
<td>-------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>mVenus plasmid</td>
<td>Addgene</td>
<td>Plasmid #54642</td>
<td>Vector type: Mammalian Expression, Fusion Protein: mVenus</td>
</tr>
<tr>
<td>mVenus cDNA</td>
<td></td>
<td></td>
<td>mVenus cDNA was cloned by enzymatic restriction digestion and ligation in Age1/BsrG1 sites of the tdTomato-N1 plasmid</td>
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<tr>
<td>Neutralization Buffer (A3)</td>
<td>Macherey-Nagel</td>
<td>740913.1</td>
<td>Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture</td>
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<tr>
<td>NucleoSpin Plasmid kit</td>
<td>Macherey-Nagel</td>
<td>740588.50</td>
<td>used to prepare plasmid from bacterial culture</td>
</tr>
<tr>
<td>Optimal-Modified Eagle Medium (Opti-MEM) Medium</td>
<td>Thermo Fisher Scientific</td>
<td>31985070</td>
<td></td>
</tr>
<tr>
<td>optional Wash buffer/Wash Buffer (A4)</td>
<td>Macherey-Nagel</td>
<td>740914.1</td>
<td>Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture</td>
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<tr>
<td>orbital shaker</td>
<td>incubated large capacity shaker</td>
<td>444-7084</td>
<td>Used to grow bacteria under gentle agitation and 37°C</td>
</tr>
<tr>
<td>Penicillin-Streptomycin</td>
<td>Thermo Fisher Scientific</td>
<td>15140122</td>
<td>10,000 U/mL</td>
</tr>
<tr>
<td>Phosphate-Buffered Saline</td>
<td>Thermo Fisher Scientific</td>
<td>10010001</td>
<td></td>
</tr>
<tr>
<td>Plasmid mini-columns</td>
<td>Macherey-Nagel</td>
<td>740499.250</td>
<td>Silica membrane mini-column to prepare plasmid from bacterial culture</td>
</tr>
<tr>
<td>Resuspension Buffer (A1)</td>
<td>Macherey-Nagel</td>
<td>740911.1</td>
<td>Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture</td>
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<tr>
<td>RNAse A</td>
<td>Macherey-Nagel</td>
<td>740505</td>
<td>Enzyme from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture</td>
</tr>
<tr>
<td>tdTomato-N1 plasmid</td>
<td>Addgene</td>
<td></td>
<td>Vector type: Mammalian Expression, Fusion Protein: tdTomato</td>
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<tr>
<td>TransIT-X2 Dynamic Delivery System</td>
<td>Mirus Bio</td>
<td>MIR 6000</td>
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<tr>
<td>Wash Buffer (AW)</td>
<td>Macherey-Nagel</td>
<td>740916.1</td>
<td>Buffer from the NucleoSpin Plasmid kit used to prepare plasmid from bacterial culture</td>
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<tr>
<td>3D printer</td>
<td>Creality</td>
<td>CR10S</td>
<td>used to print the plate adapter</td>
</tr>
<tr>
<td>Blender Software</td>
<td><a href="https://www.blender.org/">https://www.blender.org/</a></td>
<td></td>
<td>version 2.79b used to design the plate adapter</td>
</tr>
<tr>
<td></td>
<td>Blender Software</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>