

Materials List for:

# A Rapid *In Vivo* Bioassay for Developmentally Active Enhancers

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## Materials

| Name                                     | Company                     | Catalog Number | Comments                                                                                   |
|------------------------------------------|-----------------------------|----------------|--------------------------------------------------------------------------------------------|
| Bacto-Agar                               | BD Biosciences              | 204010         |                                                                                            |
| Sodium chloride                          | Sigma                       | S9888          |                                                                                            |
| Hank's Balanced Salt Solution (HBSS)     | Sigma                       | H6136          | Hank's Balanced Salt Solution (HBSS), Without sodium bicarbonate                           |
| Penicillin-streptomycin                  | Life Technologies           | 15140-122      |                                                                                            |
| Ethanol 200 proof                        |                             |                | dilute to 70%                                                                              |
| Endofree Maxiprep Plasmid Kit            | Qiagen                      | 12362          | EndoFree Plasmid Maxi Kit                                                                  |
| White Leghorn fertilized eggs            | Chino Valley Ranchers       |                |                                                                                            |
| Whatman Grade 4 filter paper             | GE Healthcare Life Sciences | 1004-240       | filter paper support (a range of grades are sufficient to provide stability during growth) |
| 50 ml conical tube                       | VWR                         | 21008-242      |                                                                                            |
| 35 mm petri dish                         | VWR                         | 627161         | Sterile Petri Dishes, 35 W x 10 H mm                                                       |
| 15 cm petri dish                         | VWR                         | 82050-600      | Sterile Petri Dishes, 145 W x 20 H mm                                                      |
| Transfer pipet                           | VWR                         | 414004-042     |                                                                                            |
| Capillary tube                           | World Precision Instruments | 1B100F-6       |                                                                                            |
| Terasaki dish                            | VWR                         | 82050-706      | dish from which to aspirate DNA                                                            |
| mineral oil                              |                             |                |                                                                                            |
| Standard hole punch                      |                             |                |                                                                                            |
| Hotplate stirrer                         |                             |                |                                                                                            |
| Stir bar                                 |                             |                |                                                                                            |
| Water bath                               |                             |                |                                                                                            |
| Round Platinum 3 mm Petri dish electrode | Protech International Inc   | CUY700-P3E     | electrode for whole embryo electroporation                                                 |
| Round Platinum 2 mm cover electrode      | Protech International Inc   | CUY700-P2L     | electrode for whole embryo electroporation                                                 |
| Humidified chamber                       |                             |                |                                                                                            |
| Dissecting microscope                    |                             |                |                                                                                            |
| Dissecting fluorescence microscope       |                             |                |                                                                                            |
| Forceps                                  |                             |                |                                                                                            |
| Standard surgical scissors               |                             |                |                                                                                            |
| CUY21-EDIT Square Wave Electroporator    | Protech International       | CUY21-EDIT     | electroporator                                                                             |
| Micropipette                             | Hamilton Company            |                |                                                                                            |

|                                         |                            |                                           |                                                                                                                                                              |
|-----------------------------------------|----------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Micromanipulator                        |                            |                                           |                                                                                                                                                              |
| Egg holder (nest)                       |                            |                                           | modeling clay shaped on a 10 cm petri dish                                                                                                                   |
| Dissecting probe                        |                            |                                           | to window the egg                                                                                                                                            |
| Parallel Fixed Needle Electrode         | Protech International Inc  | CUY610-P4.4                               | 4 mm Gap & Platinum 4 mm Tip, electrode for electroporation of neural tube                                                                                   |
| Tungsten wire                           | Omega Engineering, Inc     | W5W26-010                                 | Tungsten 5% Re vs. Tungsten 26% Re, 0.010, unsheathed, used to make fine cuts on embryo                                                                      |
| Needle holder                           |                            |                                           |                                                                                                                                                              |
| Platinum Z-Shape Blunt Needle Electrode | Protech International Inc  | CUY611-P7.4                               | 7 mm Length x 4 mm Exposed Tip, electrode for electroporation of lateral plate mesoderm                                                                      |
| 18 gauge needle                         |                            |                                           |                                                                                                                                                              |
| 10 cc syringe                           |                            |                                           |                                                                                                                                                              |
| Scotch transparent tape                 | Office Depot               | 305324                                    |                                                                                                                                                              |
| Neutral red solution 0.25%              | Fisher Scientific          | N12925                                    | to stain the embryo                                                                                                                                          |
| Dulbecco's Phosphate Buffered Saline    | Sigma aldrich              | D5773                                     | Dulbecco's Phosphate Buffered Saline, Without sodium bicarbonate                                                                                             |
| Household bleach                        |                            |                                           | for electrode cleaning                                                                                                                                       |
| Fast green FGF (0.25%)                  | Spectrum Chemical Mfg Corp | FA105                                     |                                                                                                                                                              |
| Predicted regulatory region Plasmid     |                            |                                           |                                                                                                                                                              |
| Reporter pasmid                         | Several options            |                                           | The ptkEGFP was a kind gift from Uchikawa and Kondoh, but Adgene has a ptkRFP that could be used for the reporter and pCAG-GFP for the transfection control. |
| TE buffer                               | Qiagen                     | included in Endofree Maxiprep Plasmid Kit | for dilution of DNA                                                                                                                                          |