

Materials List for:

In Utero Electroporation of Multiaddressable Genome-Integrating Color (MAGIC) Markers to Individualize Cortical Mouse Astrocytes

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URL: <https://www.jove.com/video/61110>

DOI: [doi:10.3791/61110](https://doi.org/10.3791/61110)

Materials

Name	Company	Catalog Number	Comments
1.1 Bacteria transformation			
Ampicillin	Euromedex	EU0400-C	
DH5 alpha competent cells	Fisher Scientific	11563117	
Ice box	Dutscher	139959	
Kanamycin	Sigma	60615	
LB Agar	Sigma	L2897	
SOC medium	Fisher Scientific	11563117	
Sterile petri dish- 10 cm	Thermo Fisher	150350	
Water bath	VWR	462-0556H	
1.2 Plasmid culture			
14 ml culture tube	Dutscher	187262	
Glass erlenmeyer- 2L	Fisher Scientific	11383454	
LB medium	Sigma	L3522	
1.3 Plasmid DNA preparation			
NucleoBond Xtra Maxi Plus EF	Macherey-Nagel	740426.10	
2.1 Preparation of the solutions			
26 G x 1/2 needle	Terumo	8AN2613R1	
30 G x 1/2 needle	Terumo	8AN3013R1	
Fast Green	Sigma Aldrich	F7272	
NaCl	VWR	27810.295	
Single-use polypropylene syringe, 1 mL	Dutscher	50002	
2.2 Preparation of the surgery material			
Adson Forceps - DeBaakey Pattern- 12.5 cm	FST	11617-12	
Arched tip Forceps- 10 cm	FST	11071-10	
Glass bead sterilizer Steri 250	Sigma	Z378569	
Glass micropipette 1 mm diameter	FHC	10-10-L	

Graefe Forceps - Titanium 1 mm Tips Slight Curve- 10 cm	FST	11651-10	
Graefe Forceps - Titanium 1 mm Tips Straight- 10 cm	FST	11650-10	
Iris Scissors - Delicate Straight- 9 cm	FST	14060-09	
Laboratory tape	Fisher Scientific	11730454	
Microinjector	INJECT+MATIC	No catalog number	
Olsen-Hegar Needle Holder - 12 cm	FST	12002-12	
Optical fiber	VWR	631-1806	
Plastic-coated white paper	Distrimed	700103	
Signagel electrode gel	Free-Med	15-60	
Sterile Petri dish- 35 mm	Dutscher	056714	
Sterilizer, glass dry bead, Steri 250	Sigma	Z378569	
2.3 Preparation of the pregnant female mouse			
Alcohol pad	Alcomed	1731000	
Buprecare	Axience	0.3 mg/ml	
Compress	tRAFFIN	70189	
Ketamine	Merial	Imalgene 1000	
Ocular gel	tvm lab	Ocry-gel	
RjOrl:SWISS mice	Janvier Labs		
Vetadine, 10% solution	Vetoquinol	4337400113B	
Warming pad	Harvard Apparatus	72-0493	
Xylazine	Bayer	Rompun 2%	
3.2 Electroporation			
Absorbable suture Size 4-0 45 cm Suture 1-Needle 19 mm Length 3/8 Circle Reverse	Novosyn	C0068220	
Electroporateur Sonidel	Sonidel	NEPA 21	
Sterile transfer pipets (individually wrapped)	Dutscher	043202S	
Tweezers with 3 mm platinum disk electrodes	Sonidel	CUY650P3	
4.1 Tissue harvesting and sectioning			
24-well plate	Falcon	353047	
Agarose	Lonza	50004	
Antigenfix	Microm Microtech	U/P0014	
Coverslip	Dutscher	100266	
Dolethal	Vetoquinol	DOL202	
DPBS (10X), no calcium, no magnesium	Fisher Scientific	11540486	
Nail polish	EMS	72180	
Slide	Dutscher	100001	
Vectashield	Vectorlabs	H-1000	
Vibratome	Leica	VT1000S	

5. Multichannel confocal imaging			
20X oil NA 0.85	Olympus		
Confocal Laser Scanning Microscope	Carl Zeiss	LSM880	
Confocal Laser Scanning Microscope	Olympus	FV1000	
Plan Achromat 20x/0.8 M27	Carl Zeiss		
6. Astrocyte territorial volume segmentation			
IMARIS 8.3 and later versions	Bitplane		
7. Astrocyte arborization tracing			
3D Visualization-Assisted Analysis software suite (Vaa3D)	HHMI - Janelia Research Campus /Allen Institute for Brain Science		