

Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke

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Materials

Name	Company	Catalog Number	Comments
10% Normal Goat Serum	VWR	100504-028	For blocking buffer
2-ply alcohol pre pad, Sterile, Medium	Medline	MDS090735	
25uL Hamilton Syringe 702RN, no needle	Fishcer Scientific	14824663	Syringes used to inject biomaterials
25uL Positive displacement pipette	Gilson	M-25	
2x Beam Expander, 400-650nm	Thorlabs	GBE02-A	Laser beam expander
Adjustable Stage Platform	Kopf Instruments	901	
Anti-Glucose Transporter GLUT1 antibody, rabbit	Abcam	ab113435	
Anti-Iba1 Antibody, goat	abcam	ab5076	
BD Vacutainer Safety-Lok Blood Collection Sets. 25G, 12"	Medsupply	367294	For perfusions
BKF12- Matte Black Aluminum Foil	Thorlabs	BKF12	To cover anything that is reflective when using laser.
Bone Iris Mini Scissors - 3-1/2"	Sklar surgical instruments	64-2035	
C57BL/6 Mice	Jackson Laboratory	000664	8-12 weeks of age
Cage Assembly Rob	Thorlabs	ER3-P4	3" Long, diameter 6mm, 4 pack - for attaching laser to stereotax
Carbon Steel Burrs -0.5mm Diameter	Fine Science Tools	19007-05	For creating burr hole
Chromium(III) potassium sulfate dodecahydrate	VWR	EM1.01036.0250	
Compact Controller for pigtailed lasers	Thorlabs	CLD1010LP	
Cotton Swabs	VWR	89031-288	
CP 25 pipette tips	Gilson	F148012	
Donkey anti-goat IgG H&L (488)	abcam	ab150129	
Donkey Anti-rabbit IgG H&L (647)	abcam	ab150075	
Donkey Anti-rat IgG H&L (555)	abcam	ab150154	
EMS DPX Mountant	Electron Microscopy Sciences	13512	Mounting solution for slides

EMS Gelatin Powder Type A 300 Bloom	Electron Microscopy Sciences	16564	For gelatin coating slides
EMS Paraformaldehyde, Granular	VWR	100504-162	For making 45 PFA
ESD Worstation kit	Elmstat	WSKK5324SB	Need for setting up the laser
Fiber Bench Wall Plate, unthreaded	Thorlabs	HCA3	Need for connecting laser to Kopf shaft
FiberPort	Thorlabs	PAF-X-5-A	FC/APC& APC, f=4.6mm, 350-700nm, diameter 0.75mm
Fine Scissors - straight/sharp-blunt/10cm	Fine Science Tools	14028-10	
GFAP Antibody, rat	Thermo Fisher Scientific	13-0300	
Heating Plate	Kopf Instruments	HP-4M	
ImmEdge Hydrophobic Barrier Pen	Vector Laboratories	H-4000	For staining slides
IMPAC 6-Integrated Multi Patient Anesthesia Center	VetEquip	901808	
Iodine Prep Pads	Medx Supple	MED MDS093917H	
Jewlers Forceps #5	GFS chemicals	46085	
Laser Safety Glasses	Thorlabs	LG10B	Amber Lenses, 35% Visible light (googles versions available too)
M27-1084 Powerful LED Dual Goose-neck	United Scope	LED-11C	
Medical USP Grade Oxygen	Airgas	OX USP250	
Miltex Adson Dressing Forceps, Dissecting-grade	Intefra Miltex	V96-118	
Mini Cord/Cordless Small Animal Trimmer	Harvard aparatus	72-6110	
Mini-pump variable flow	Thomas Scientific	70730-064	Pump for perfusions
Mouse Brain Matrices, Coronal Slices, 1mm	Kent Scientific	RBMA-200c	For TTC slices
Mouse Gas Anethesia Head Holder	Kopf Instruments	923-B	
Nanojet Control Box	Chemyx	10050	
Nanojet pump header	Chemxy	10051	Attach to stereotaxic device for injecting biomaterial
Needle RN 30G PT STY 3, 0.5 inch	Fishcer Scientific	NC9459562	
Non-rupture ear bars 60°	Kopf Instruments	922	
PBS buffer pH 7.4	VWR	97062 338	
Pigtaled laser 520 nm, 100mW, 5G Pin	Thorlabs	LP520-MF100	
Positive charge glass slides	Hareta	AHS90-WH	
Power energy meter	Thorlabs	PM100D	Used to measure your mW laser output
Puralube Vet Ointment	Dr. Foster Smith	9N-76855	
Rectal Probe Mouse	kopf Instruments	Ret-3-ISO	
Rose Bengal Dye 95%	Sigma-Aldrich	330000-5G	
Shaft Modified 8-32 threaded hole 1/2" depth	Kopf Instruments	1770-02	For connecting laser to sterotaxic device
Slim photodiode power sensor	Thorlabs	S130VC	Used with power energy meter
SM1-Threaed 30 mm Cage Plate 0.35" thick 2 Retaining	Thorlabs	CP02	For connecting laser expander
Sol-M U-100 Insuline syringe with 1/2 unit markings 0.5 mL	VWR	10002-726	To inject rose bengal
StainTray Slide Staining System	Simport Scientific	M920-2	For staining slides
Sterotaxic device	Kopf Instruments	940	Small Animal Stereotaxic Instrument

Student Adson Forceps -1x2 teeth	Fine Science Tools	91127-12	
Student Fine Forceps - straight/broad Shanks	Fine Science Tools	91113-10	
Temperature Controller	Kopf Instruments	TCAT-2LV	
Tissue-Tek OCT compound	VWR	25608-930	
Triton X-100	VWR	97063-864	
Upper Bracket Clamp	Kopf Instruments	1770-c	For connecting laser to stereotaxic device
Vetbond Tissue Adhesive 3mL	Santa Cruz Biotechnology	sc-361931	
Vogue Professional My Manicurist	Bargin Source	6400	For Burrs
VWR Bead Sterilizers	VWR	75999-328	
Tissue Tek OCT compound	Sakura	4583	For tissue embedding