

Materials List for

# Disruption of the Mouse Blood-Brain Barrier by Small Extracellular Vesicles from Hypoxic Human Placentas

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## Materials

Name	Company	Catalog Number	Comments
Adult mice brain slicer matrice 3D printed	Open access file	Adult mice	Adult mice brain slicer. Printed in PLA filament.
Anti β-Actin primary antibody	Sigma-Aldrich	Clon AC-74	Antibody for loading control (Western blot)
Anti-Claudin5 primary antibody	Santa cruz Biotechnology	sc-374221	Primary antibody for tight junction protein CLDN5 of mice BBB (Western blot)
BCA protein kit	Thermo Scientific	23225	Kit for measuring protein concentration
Culture media #200 500 mL	Thermo Fisher Scientific	m200500	Culture media for placental explants
D180 CO <sub>2</sub> incubator	RWD Life science	D180	Standard incubator to estabilize explants and culture sEVs-Nor
Evans blue dye > 75% 10 g	Sigma-Aldrich	E2129.10G	Dye to analyze blood brain barrier disruption IN VIVO
Fetal bovine serum 500 mL	Thermo Fisher Scientific	16000044	Additive growth factor for culture media 200
Himac Ultracentrifuge CP100NX	Himac eppendorf group	5720410101	Ultracentrifuge for conditioned media> 1,20,000 x g
ImageJ software	NIH		<a href="https://imagej.nih.gov/ij/download.html">https://imagej.nih.gov/ij/download.html</a>
Isoflurane x 100 mL	USP Baxter	212-094	Volatile inhaled anaesthesia agent for mice
Kit CellTiter 96 Non-radioactive	Promega	0000105232	<i>In vitro</i> assay for placental explants viability
Mouse IgG Secondary antibody	Thermo Fisher Scientific	MO 63103	Secondary antibody for CLDN5 (western blot)

NanoSight NS300	Malvern Panalytical	90278090	Nanotracking analysis of particles from placental explants conditioned media
Paraformaldehyde E 97% solution 500 mL	Thermo Fisher Scientific	A11313.22	Fixative solution for brain tissue slices and intracardial perfusion (once diluted)
PBS 1 X pH 7.4 500 mL	Thermo Fisher Scientific	10010023	Wash solution for placenta explants
Penicilline-streptomycine 100x 20 mL	Thermo Fisher Scientific	10378016	Antibiotics for placental explants culture media
ProOX C21 Cytocentric O <sub>2</sub> and CO <sub>2</sub> Subchamber Controller	BioSpherix	SCR_021131	CO <sub>2</sub> regulator to induce Hypoxia in sealed chamber for sEVs-Hyp
Sodium Thiopental 1 g	Chemie	7061	humanitarian euthanasia agent
Somnosuite low flow anesthesia system	Kent Scientifics	SS-01	Isoflurane vaporizer for small rodents
Surgical Warming platform	Kent Scientifics	A41166	Warming platform for maintenance anesthesia in mice
Syringe Filters, Polytetrafluoroethylene (PTFE), Hydrophobic, 0.22 µm, Sterile, 25 mm	Southern labware	10026	Filtration of conditioned media harvested from placental explants
Tabletop High-Speed Micro Centrifuges HITACHI himac CT15E/CT15RE	Hitachi medical systems	6020	Serial centrifugations of conditioned media < 1,20, 000 x g
Trinocular stereomicroscope transmited and reflective light 10x-160x	Center Medical	2597	Stereomicroscope to register brain slices