

Materials List for:

Neural Activity Propagation in an Unfolded Hippocampal Preparation with a Penetrating Micro-electrode Array

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Materials

Name	Company	Catalog Number	Comments
desiccator jar	LABRECYCLERS Inc.	5410	Place regular paper towels at the bottom of the jar for animal anesthesia use.
A blade and Custom made surgical stage for unfolding hippocampus	N/A	N/A	A petri dish is placed upside down (in the center) in the ice with a wet filter paper placed on top of it.
Custom made tissue recovery chamber	N/A	N/A	Plastic tubes were glued with plastic mesh at the bottom and bubbled with 95% O ₂ / 5% CO ₂ in the aCSF.
Straight Operating Scissors	Fisher Scientific	S17336B Medco Instruments No.:81995	This scissors is used to decapitate the mice.
Integra Miltex Goldman-Fox Scissors	Fisher Scientific	12-460-517 INC MILTEX No.:5-SC-320	This scissors is used to cut the skull of the mice.
Miltex Hysterectomy Forceps	Claflin Medical equipment	CESS-722033-00001	This Forceps is used to peel the cut skull to expose the brain
Micro Spatula	Cardinal Health		This micro spatula is used to transfer the whole brain of a hemisphere into the recovering chamber.
Frey Scientific Stainless Steel Semi-Micro Spatula	Cardinal Health		this semi micro spatula is used to transfer the unfolded hippocampus into the glucose aCSF in the recovering chamber.
small paint brush	Lowe's	tem #: 105657 #: 90219 Model	The one with the smallest size in a normal paint brush package
Fire polished glass help tool	N/A	N/A	This tool was fire polished and made from the regular Pasteur glass pipettes.
Custom made glass needle	N/A	N/A	This tool was fire polished and made from the regular Pasteur glass pipettes.
Custom made glass tool with a metal wire loop	N/A	N/A	This tool was fire polished and made from the regular Pasteur glass pipettes with a reshaped metal wire loop.
Custom made glass solution dropper	N/A	N/A	This tool was made from the regular Pasteur glass pipettes with its tips cut and a rubber head attached with the cut end.
Custom made tissue anchor	N/A	N/A	Nylon fiber mesh was glued on a insulated copper wire ring. The

			tissue anchor was hold by an micromanipulator.
Custom fabricated microelectrode array	N/A	N/A	More detail about the array please refer to Kibler, et al, 2011.
Custom made filter and amplifiers circuits for the array	N/A	N/A	More detail about the array please refer to Kibler, et al, 2011.
Data acquisition processor 3400a	Microstar Laboratories	N/A	This is a complete data acquisition system with A/D converter.