

SMARTCLEAR II PRO

The Multi-Purpose Clearing System You've Been Waiting For.



Powered by patent-pending Stochastic Electrotransport (Kim et al, PNAS, 2015) technology

SMARTCLEAR II PRO SYSTEM

MULTIPURPOSE USABILITY

Batch processing and customization: 5 whole mouse brains or 2 rat brains can be cleared simultaneously. Larger clearing chamber enables clearing of various sample types and sizes that can be customized according to your needs.

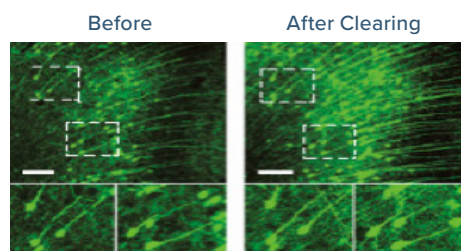
COST-EFFECTIVE CLEARING OF BULK QUANTITY

Cost-effective and Eco-friendly: New-generation buffer set lasts around 10 days without loss of its clearing ability. Lower running costs for samples as the same volume of buffer is used regardless of size and number of samples.

FAST, EASY, AND RELIABLE

Fast & Easy: Order of magnitude faster than passive clearing. Our ready-to-use technologies bring plug-and-play options to clearing.

Reliable: Prevents tissue damage with Stochastic Electrotransport technology (Kim, PNAS). Our nanoporous membranes (patent-pending) eliminate tissue contamination, tissue browning, black precipitates and tissue deformation while providing uniform clearing.

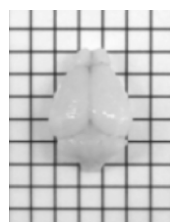


FP is preserved well after clearing (Thy1-GFP mouse brain)

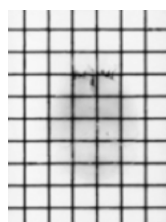
PERFECT CLEARING WITH MAXIMAL PRESERVATION OF FP SIGNAL

FP Signals: Maximum preservation of Fluorescent Protein (FP) signals with optimized buffers that maintain pH.

Optical Clarity: Minimum light scatter. Removes lipid best for best antibody diffusion. Optimal imaging and staining quality that is compatible with SmartLabel, our rapid staining system for intact samples.



Whole Mouse Brain



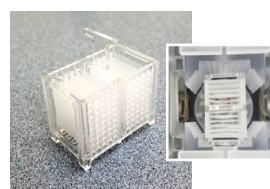
Cleared Mouse Brain

VARIOUS SAMPLE HOLDERS



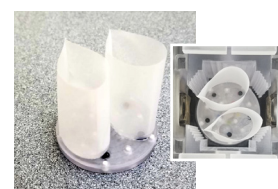
SC-L2P10

11mm (W) x 18mm (D) x 40mm (H) x 5
Clears 5 whole mouse brains



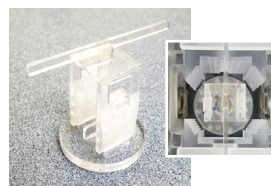
SC-L2P11

(3mm apart)
Clears up to 10 1~2mm thick slices



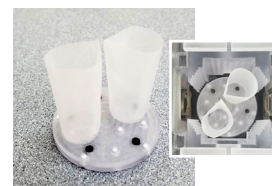
SC-L2P12

19mm (W) x 28mm (D) x 40mm (H) x 2
Clears 2 whole rat brains



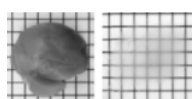
SC-L2P13

4mm (D) x 18 holes
Clears up to 18 circular disk-shape tissues

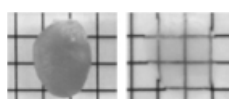


SC-L2P14

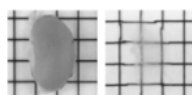
15mm (bottom diameter) x 19mm (top diameter) x 40mm (H) x 2
Clears 2 whole rat brains.



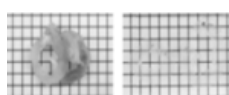
Liver



Heart



Kidney



Intestine

Heart, kidney, and liver were also completely cleared with stochastic electrotransport in 3d.
Intestine took 1d (Kim et al, PNAS, 2015)



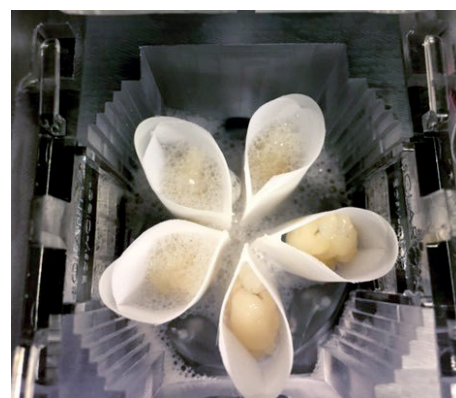
SMARTBOX

A simple touchscreen with a user-friendly UI makes it fast and easy to run the SCII Pro. Beginner and Expert modes give the user preset Gentle and Rapid clearing settings while also providing total control of temperature, current limits, voltage limits and sample rotation speed.

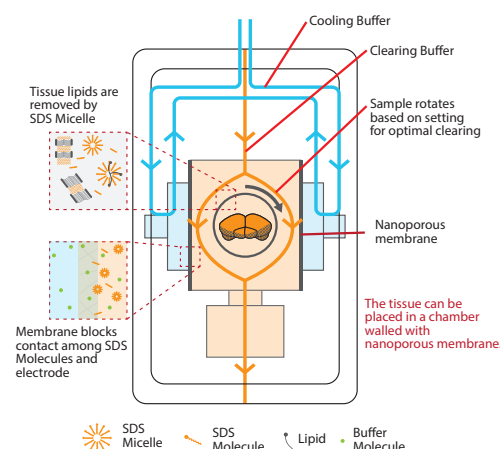
SPECIFICATIONS

SmartClear II Pro Module			
Physical Characteristics	Product Type		SmartClear Pro: Tissue Clearing System
	Product Dimensions		14.4" (W) x 14.8" (D) x 16.9" (H) 366mm (W) x 375mm (D) x 410mm (H)
	Weight		55 lbs (25 kg)
	Operating Power/Frequency		AC 100~120V / 50~60Hz AC 200~240V / 50~60Hz
	Electrical Input		100~120V (5A) or 200~240V (3A)
Clearing Part	Chamber	Dimension	1.8" (W) x 1.9" (D) x 1.7" (H) 46mm (W) x 46mm (D) x 42mm (H)
		Sample Rotation Speed	0rpm~10rpm
		Sample Protection Method	Specialized nanoporous membrane
		Control values	Current value
			Current upper limit
	Buffer Reservoir	Reservoir A	Buffer A for clearing tissue
		Reservoir B	Buffer B for cooling the electrode
		Reservoir Capacity	500mL each
	Cooling		Water circulation with hydraulic pump

LARGER CHAMBER



CHAMBER DETAIL



Clearing Buffer

- Optimized for tissue clearing
- Long life time (up to 10 days)
- Eco-friendly

Smart Box: SmartClear II Pro Control Module		
Physical Characteristics	Product Dimensions	8.3" (W) x 14.8" (D) x 10.4" (H)
	Weight	12 lbs (5 kg)
	Electrical Input	100~120V (15A) or 200~240V (8A)
Interface	LCD Monitor/Touch	RGB256 Color, 800 x 480 Pixel Resistive Touch
	Software	Beginner mode/Expert mode Fluorescent/Non-fluorescent preset



Optical Clearing Solution (RI=1.46)

- Formulated for best performance with CLARITY, SWITCH, and MAP.
- Cost-effective and convenient